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REPORT

ON THE

Public Health Administration of the Punjab

DURING THE YEAR 1930

BY

KHAN BAHADUR DR. K. A. RAHMAN, M.B., CH. B. (EDIN.), D. P. H. (LOND.),

Offg. Director of Public Health, Punjab,

TOGETHER WITH

The Report on Sanitary Works

DURING THE YEAR 1930

BY

RAI BAHADUR AMAR NATH, NANDA, B.A., M.I.E. (INDIA),

Superintending Engineer, Public Health Circle, Punjab,

AND

REPORT

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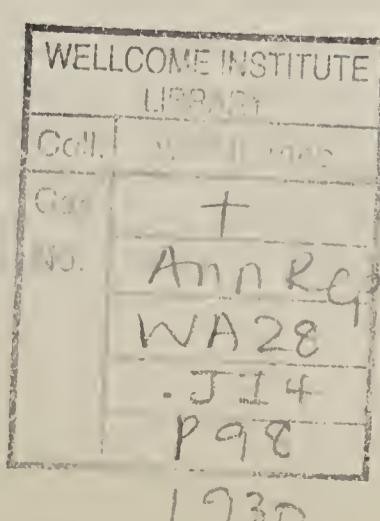
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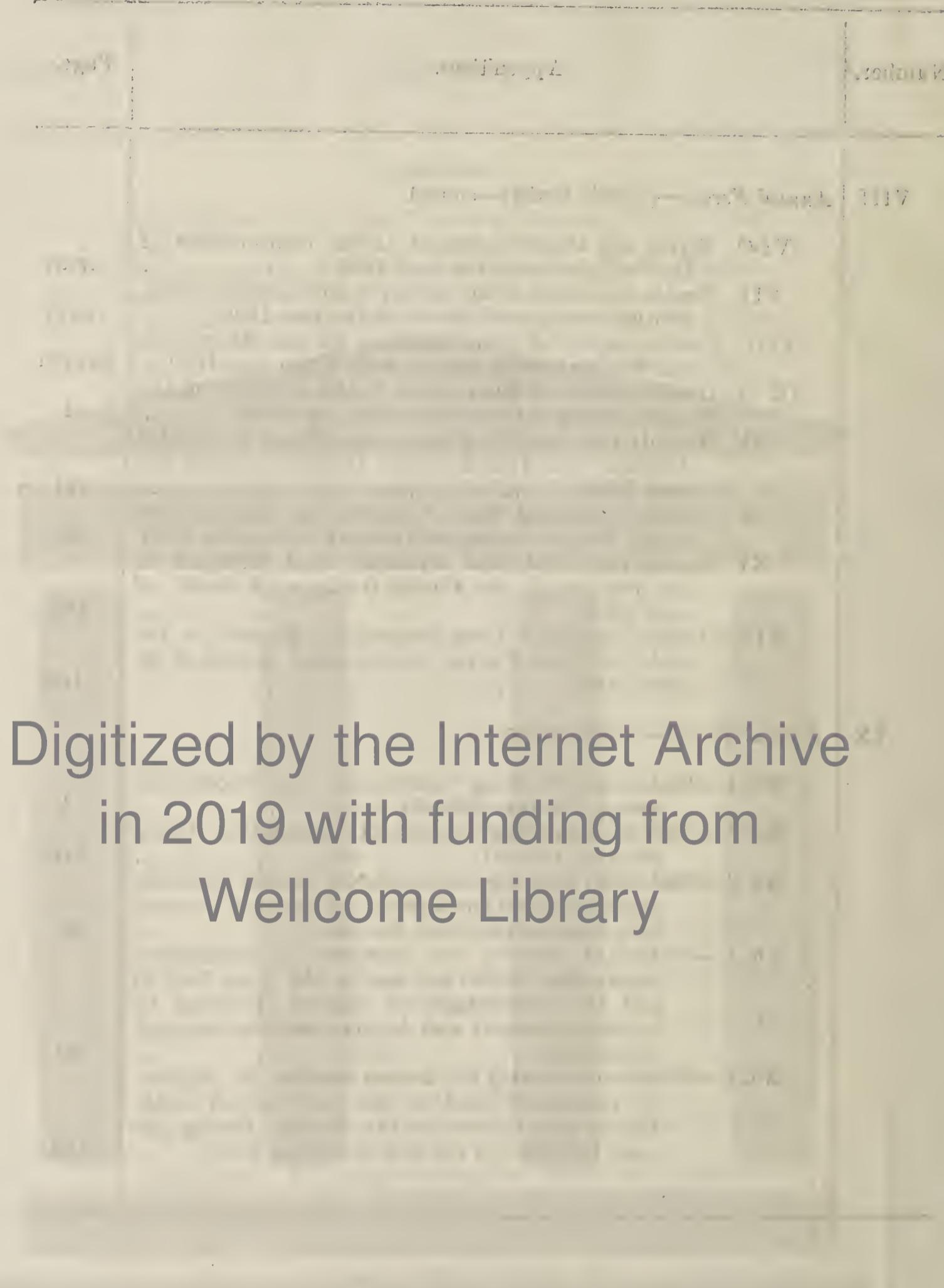
(The text of the Public Health Report is limited to 31 pages and that of the Superintending Engineer to 19 pages.)

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Proceedings of the Punjab Government (Ministry of Education) in the Public Health Department, No. 33797, dated the 12th November 1931.

READ—

The Report on the Public Health Administration of the Punjab for the year 1929.

IN 1930 the climate was favourable for health and for agriculture, the monsoon being heavy but sufficiently early not to encourage malaria, while winter dryness militated against plague. Though the low prices made it difficult for agriculturists to pay revenue, the good harvests ensured sufficient sustenance.

While the increase in population in 1930 was 278,939 as compared with 321,955 in 1929, it is interesting to learn that the annual average increase since 1921

Vital Statistics. Census is 242,958, the total increase in the ten years being 2,368,841, every district contributing to the increase except Muzaffargarh, which has recently suffered intensely from malaria. Another interesting feature of the population mentioned in the report is the excess of males over females by 2,051,469; the birth statistics showing an annual preponderance during the last five years of male over female babies of 11 per cent. The provincial death rate (*29·7 per mille*) was somewhat higher than in 1929, but corresponds almost exactly with the quinquennial average. Lyallpur, the richest district, and Gurdaspur, which is one of the unhealthiest, again, as last year, were among the districts with the highest birth rate and also highest infant mortality. There was a considerable fall in the death rate for the three largest cities (Lahore, Amritsar and Multan); the more important of the smaller towns which show an exceptionally high death rate are Jagadhri (*49·2 per mille*), Ferozepore (*49·10*), Palwal (*44·70*), Phillaur (*44·51*) and Isa Khel (*42·45*), the mortality of the latter place being due to cholera and of the others chiefly to "fever". Urban death rate was, as usual greater than the rural, but only by under 1 per cent. Infant mortality was about the same as in the previous year, the deaths of infants under one month being almost exactly the same, *i.e.*, between 71,000 and 72,000, and of infants between one month and six months and of those between six and twelve months about 47,000 each. That is to say, the total number of infant deaths was 165,000 or about 185·73 per thousand births. Clearly therefore the problem of infant mortality is as serious as ever; and it must be remembered that the above statistics do not include still births. It is therefore greatly to be hoped that the Health Centres, of which there are 6, out of a total of 35 in the province, now maintained by district boards, will increase in number and size.

Cholera appeared only in a mild form, accounting for 2,040 cases with 1,181 deaths, and as usual the disease was imported by pilgrims from fairs in other provinces, *viz.*, from the Kumbh Fair, Allahabad, and the Hardwar Fair, while there was some importation from Kashmir in the winter. Vigorous anti-cholera measures probably helped to keep the disease down. They were brought into force at the beginning of the year, anti-cholera depôts being established at important railway stations, and efforts to get pilgrims inoculated before departing for Allahabad being to some extent successful. It was decided by Government shortly after the year under report that measures for compulsory anti-cholera inoculation would be inadvisable. The existence of District Medical Officers of Health have been very helpful in preventing epidemics because wherever a sporadic case, due to imported infection, took place, the District Medical Officer of Health was by prompt action able to suppress the spread of the disease. The steps taken by Government to improve water supplies, particularly at Thanesar and Choa Katas fairs, which used to spread infection formerly, have considerably lessened the dangers of cholera epidemics.

Small-pox claimed 5,341 victims or more than 2,000 less than in the previous year, chief mortality being in May, June and July and the disease being spread impartially over the province. As usual the mortality from it was severer in urban than in rural areas.

Plague showed a very welcome decrease of mortality to the insignificant number of 554. It may, therefore, be hoped that this disease is well under control in the province, as this is by far the lowest mortality during the last thirty years, and the disease was confined to five districts, three of them being a neighbouring group of sub-montane districts, Gurdaspur, Sialkot and Hoshiarpur, the other two being the adjoining districts in the south of the province, Rohtak and Karnal. Intensive rat destruction was carried out in the off season, and doubtlessly to this and to the general work of District Health Officers as well as to the climatic conditions is to be attributed the welcome decrease of this fell disease. Should the active steps now being taken be slackened, there will be a possibility of recrudescence of this disease which has endemic centres within the province.

Fever which includes malaria and influenza, accounted for considerably more deaths than in the previous year (422,377 against 402,429). This is surprising in view of the dry start of the cold weather, but it is pointed out in the report that the high mortality was the aftermath of the epidemic of malaria at the end of 1929.

Dysentery and Diarrhoea show rather less mortality than in the previous year, and the chief features were the high death rate in the hill districts of Simla, Kangra and Rawalpindi, and the very much higher urban (1.53 per thousand) death rate as compared with the rural (0.48).

Statistics of mortality from *respiratory diseases*, as is to be expected, show a still more marked disparity between urban and rural areas, the figures being 5.90 and 2.10 per thousand. The high urban death rate from this cause will continue until the municipal administration reaches a higher standard of efficiency, the narrow streets, high buildings and archaic sanitation, in fighting against which the public and their elected representatives have so far not adequately discharged their duty, taking a heavy toll of the inhabitants.

Under the head "Injuries" are included deaths from rabies (95 or 22 less than preceding year); and the Government is pleased to observe the increasing usefulness of the Punjab Bacteriological Laboratory attached to the Pathological Department of the King Edward Medical College, Lahore, which was instituted in January 1925. At this centre 2,887 persons were treated as compared with 2,651 at the Pasteur Institute, Kasauli.

The total number of Vaccinators and Superintendents of vaccination increased from 526 to 534, and the plan of appointing at least one vaccinator for every police station is nearing fulfilment. The total number of vaccinations increased by about 140,000 to 1,730,000, and the Government is gratified to observe that there has been a steady and progressive increase during the last few years. The existence of a District Medical Officer of Health in each district is largely responsible for this improvement. Another satisfactory feature is the steadily increasing number of re-vaccination operations. The percentage of success was about the same as in the previous year, being 97.96 for primary vaccination and 68.80 for re-vaccination.

The Sanitary Engineering Department had under construction 34 provincial sanitary works and 32 contribution works for local bodies, and as many as 73 preliminary and detailed projects were prepared. The financial stringency, however, which became acuter as the year went on, will for a long time prevent many of these projects from being carried out. Among the provincial works completed during the year may be mentioned

the Water Supply and Sewerage Schemes for Chauburji Gardens Estate, Lahore, costing Rs. 1,10,343 and Rs. 2,70,731 respectively, and among the works done for local bodies (for executing which works the Public Works Department receive 19 per cent. departmental charges) the Pathankot Water Supply (Rs. 1,71,145), the Multan Water Supply (Rs. 12,57,637) and the Rohtak Water Works (Rs. 5,56,479). As is pointed out in the report however expensive water supply and conservancy arrangements often suffer from inefficient control and from an unwillingness of the public and of local bodies to permit the levy of a water-rate and the metering of house connections. These drawbacks were mentioned in last year's report, and it is regrettable that they are as much in evidence as ever.

Government are pleased to learn from the report that the model sanitary regulations framed under the District Boards Act are being increasingly adopted by villages, Rohtak district setting an example to the rest. The works carried out by the Rural Sanitary and Improvement Board were mainly for improving water supply in waterless tracts and for providing piped water supplies for localities for fairs and markets.

The charge of the office of Director, Public Health, was held by Lt.-Col. C. A. Gill, I. M. S., except for the period 14th May to 9th October when he officiated as Inspector-General of Civil Hospitals, during which period Khan Bahadur Dr. K. A. Rahman officiated, and Government are pleased to observe the steady progress made by the department under these two officers, and desire to thank Khan Bahadur Dr. K. A. Rahman for a full and detailed report.

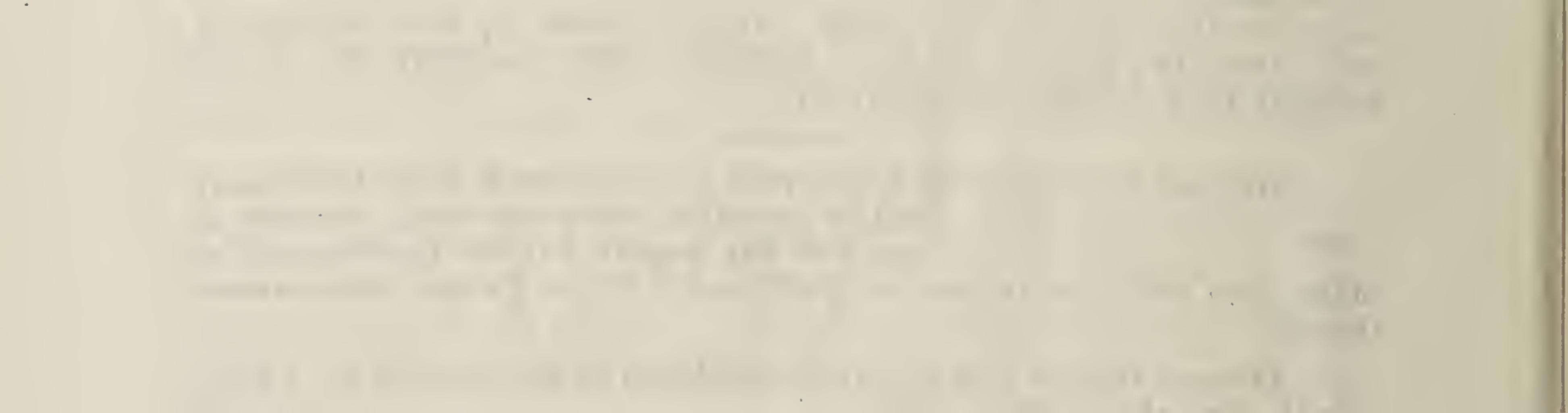
Ordered that copies of this review be circulated with the report and be furnished with the usual number of copies of the report to the Government of India, also that the review be published in the *Punjab Government Gazette*.

Ordered further that a copy be furnished to the Director of Public Health, Punjab, for information.

By order of the Punjab Government,
(Ministry of Education).

FIROZ KHAN, NOON,
Minister for Education.

P. MARSDEN,
Secretary to Government, Punjab,
Transferred Departments.



ERRATA.

Annual report on the Public Health Administration of the Punjab during the year 1930.

1. Appendix I, page iv, item 18, line 3, read 10" instead of 10' before "Tej strainer."

CHAPTER I.—Climatic and Economic Conditions.

1. The following brief account is extracted from the report of the Director-General of Observatories and the monthly figures in respect of temperature, relative humidity and rainfall are given in Appendix VI.

In January, during the second week and again towards the end of the month, rainfall was fairly widespread throughout the province but largely in excess of normal in the southwest. During February the precipitation associated with western disturbances occurred mainly in the Punjab hills and the adjacent plains and the weather was practically dry in the south-west Punjab. The rainfall was again in large defect throughout the province during March as was also the mean relative humidity; the maximum temperature was, however, above normal. The chief features during the winter, from the point of view of public health were, therefore, low rainfall and low atmospheric humidity and the practical absence of the plague epidemic in the spring was in a large measure a reflection of these circumstances. There was an improvement in April and widespread and locally heavy rain fell in the Province between the 6th and 8th and from the 24th to the 26th; the total rainfall of the month was nearly double the normal amount. During May, on the other hand, rainfall was in large defect in the east and north Punjab, and normal in the southwest of the province. Conditions were disturbed in the Punjab and its neighbourhood on five occasions during June and were associated with local falls of rain. The monsoon extended into the province on the 4th July and was unusually active during the greater part of the month under the influence of four disturbances from the Bay of Bengal thus resulting in very heavy falls in the east and north Punjab on the 27th. The monsoon was weak in the first week of August but strengthened and gave widespread rain in the second week. A break in the rains, which commenced in the plains at the beginning of the third week, had extended to the hills also after the 22nd and during the rest of the month there was no rain in the province. The monsoon showed some signs of revival in the beginning of September and was fairly active in the third week. Rainfall was normal in June, in large excess in July, and in moderate to large defect in August and September. Numerous western disturbances entered north-west India in the months of October, November and December, but only a few were productive of rain in the province. Rainfall was consequently in large defect throughout, weather being absolutely dry in the south-west Punjab in the last two months.

Skies were more clouded than usual in January, April, July and October and less clouded in March and August. Humidity was in defect in March and from September to December, but was in excess in July. Maximum temperature was below normal in February, April and July and above normal in March and December. Minimum temperature was lower than usual in June, July, September and November.

2. The average wholesale prices per maund of staple food-grains, expressed in rupees annas and pies, which prevailed in the principal markets of the Punjab during the year 1930 and in the previous year, are given in table I below :—

TABLE I.

Locality.	WHEAT.		BARLEY.		JOWAR.		BAJRA.		MAIZE.		GRAM.	
	1930.		1929.		1930.		1929.		1930.		1929.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Ambala	3 1 6	5 1 7	2 4 11	3 15 5	...	...	...	...	2 7 2	4 10 2	3 14 5	5 7 2
Lahore	3 0 6	5 3 5	3 2 5	3 12 4	3 1 2	4 13 10	3 6 1	5 2 6	2 14 5	5 2 10	3 10 6	5 4 7
Bawalpindi	3 4 8	5 5 11	2 3 9	3 8 5	2 13 0	4 4 9	2 18 10	5 3 7	2 13 11	4 3 4	3 11 2	5 6 8
Multan	2 13 7	4 15 7	2 1 5	3 15 1	2 10 10	4 5 1	3 12 4	5 2 6	2 11 4	5 0 0	3 6 4	5 5 1

From a study of the figures given in Table I it will be seen that as compared with the preceding year a marked fall in prices of all the foodgrains occurred during the year under review. This general decline in prices is attributed to lack of demand for export of wheat and fall in price throughout the world.

Fodder and water were generally adequate. There was no marked change in the wages demanded either by the skilled or unskilled labour. Economic stress, due to the big fall in the prices of foodgrains was, however, keenly felt by the agriculturists, who constitute the majority of the inhabitants of this province and by others due to heavy depression in trade and increased unemployment. These conditions were specially bad in Gurgaon and Hissar where test works for the relief of the famine-striken had to be continued till the conditions improved by favourable monsoon in August followed by a fall in the world's prices of wheat. The comparatively poor Kharif crops necessitated remission by Government of part of the land revenue in badly effected parts of the province.

3. The meteorological circumstances of the year were equally favourable both to the crops and public health. The excessive, but somewhat early monsoon while responsible for bumper crops in several districts reduced the chances of the prevalence of widespread epidemic of malaria in the province. On account of deficiency of rains in winter the weather was unfavourable for the spread of plague.

CHAPTER II.—Vital statistics.

4. The vital statistics of the 45 municipal towns with a population of over 10,000 were, as usual, compiled and published in the official Gazette every week. Besides this vital statistics of all towns with a population in excess of 20,000 as also of rural areas excluding these towns were published monthly. In addition weekly reports of epidemic diseases from all towns and tahsils in each district showing the number of seizures and deaths from cholera, plague, smallpox, influenza and relapsing fever were also collected, summarised and published for wide circulation in the official Gazette as well as by the courtesy of the management in several newspapers issued from the province. In this way both the public and the Government were kept constantly informed of the actual state of health and of the prevalence of epidemic diseases. The vital statistics form as it were a barometer of public health indicating whether it is high or low, good or bad. But their usefulness is dependent on accuracy and reliability of the data. It need hardly be emphasised that the increasing reliability of facts and figures now collected by the Department, specially in regard to the occurrence of epidemic diseases, indicate a good augury that if efforts are continued on the lines now being adopted, in course of time, the value of the conclusions arrived at will be materially augmented.

5. The census enumeration (20,517,606) of the Punjab carried out in 1921 is the basis for calculating birth and death rates mentioned in this report. The estimated population on January 1st, 1931, which has been arrived at by adding births and subtracting deaths since April 1921, works out to 22,886,447 and shows that the census population had increased by 2,368,841 during the last 9½ years. The natural increase in the population during 1930 was 278,939 as compared with 321,955 in the previous year and an average of 242,958 per annum since the last census. All the districts except Muzaffargarh shared in this increase, which affords evidence of the recuperative power of the population under favourable conditions of health. The decrease in population in Muzaffargarh is mainly attributable to the direct or indirect effects of previous year's epidemic of malaria.

The estimated population on December 31st, 1930, comprised of 12,468,958 males and 10,417,489 females, the number of males thus exceeding the number of females by 2,051,469 as compared with 2,038,378 at the end of the preceding year.

Calculated on the estimated population the provincial birth rate is 38.8 or 4.5 less than the rate calculated on the census figures. Similarly the provincial death rate 26.6 is less by 3.1.

6. Births.—The total number of births registered during the year

1930 was 887,⁶21 or 43·3 per *mille* of which

469,771 (22.9 per mille) were males and

Annual Form No. 1. 417,750 (20·4 *per mille*) females, the corresponding figures for the year previous to it being 911,918 (44·5 *per mille*) of which 481,885 (23·5 *per mille*) were males and 430,033 (21·0 *per mille*) were females. This falling off in the births is attributable to the epidemic of malaria which took place in the autumn of 1929, of which the effect is reflected in the births of the year following the epidemics. The number of males born compared with every 10⁰ females was 112·5 as compared with 112·1 in the year 1929 and 111·8 during the preceding quinquennium. An analysis of the figures by months shows that in the Punjab the highest birth-rate (4·74) was recorded in December and the lowest (2·72) in June.

It may be pointed out that the birth-rates mentioned above are the crude birth-rate calculated as they are on the basis of total population. To arrive at anything like a true general measure of the force of natality it is essential firstly to differentiate between legitimate and illegitimate births, between living and still births and secondly to use as a basis the total number of married women between the age limits of child bearing period.

7. The birth-rate of districts varied between a maximum of 52·0 and a minimum of 23·8 *per mille*. The five Districts with the highest birth-rates were—

The District birth-rate.
Annual Form No. I.

districts recording the highest birth-rate were Gurdaspur (52·0), Amritsar and Lyallpur (51·7) each, Sialkot (50·4) and Rohtak (49·3) whilst the five districts recording the lowest birth-rates were Muzaffargarh (23·8), Simla (26·9), Dera Ghazi Khan (28·1), Attock (33·2) and Karnal (36·0).

The birth-rate of all districts except Muzaffargarh (where autumnal fever had been prevalent) exceeded the death-rate, the excess being most marked in Sialkot (+23·0), Lyallpur (+22·5), Gurdaspur (+21·5), Amritsar (+20·6) and Sheikhupura (+20·4) neither of which was affected by epidemic of malaria during the preceding year nor by any other epidemic disease during the year under report. Comparing the birth-rate of the year 1930 with the mean figure of the preceding five years, 18 districts showed an increase and 11 districts a decrease. The five districts recording the greatest increase above the quinquennial mean figure were Rohtak (7·2), Sheikhupura (5·9), Sialkot (5·3) Gurdaspur (4·4) and Lahore (4·1).

8. The birth-rate of the 45 towns with a population of 10,000 and upwards was 45·9 *per mille* as compared with their birth-rate in 1911.

The Urban birth-rate.
Annual Form No. VI-B-Towns. 45·7 *per mille* in the previous year and a mean birth-rate of 43·8 *per mille* during the preceding five years. The birth-rate of the three large cities in the year under review, in the preceding year and in the previous five years is shown in table II.

TABLE II.

Town.	1930.	1929.	1925-29.
Lahore ...	41·72	41·06	38·64
Amritsar ...	52·28	52·68	50·98
Multan ...	43·39	45·95	46·57

The birth-rate of all the towns (municipal, notified area and small towns) where registration of vital statistics is compulsory, and which now number 26.6 was 44.29 *per mille*, as compared with 44.04 *per mille* in the previous year and a mean birth-rate of 42.67 *per mille* in the preceding five years.

9. The birth-rate in rural areas (excluding the towns) was 43.13 *per mille* as compared with a mean birth-rate of 42.98 during the previous five years and 44.49 during the preceding year. The districts (rural areas) showing in order the highest birth-rates were Lyallpur (52.64), Gurdaspur (52.01), Amritsar (51.50), Sialkot (50.14) and Rohtak (49.29). All these districts escaped the malaria epidemic of 1929.

10. Deaths.—The total number of deaths registered during the year was 604,582 of which 323,754 were males and 284,828 females. The provincial death-rate works out to 29.7 *per mille* as compared with 28.8 *per mille* in the preceding year and a mean death-rate of 29.5 during the previous quinquennium.

Calculated on the estimated population the death-rate was 26.6 *per mille* or 3.1 *per mille* less than the figure based on the census population.

The death-rate of males and females in the year under review, in the preceding year and in the previous five years was as given in table III.

TABLE III.

Sex.	1925-29.	1929.	1930.
Males ...	28.6	27.7	28.9
Females ...	30.6	30.0	30.6
Excess of the female over the male death-rate ...	2.0	2.3	1.7

From a scrutiny of table III it will be seen that the female death-rate exceeded the male death-rate by 1.7 *per mille* as compared with 2.3 *per mille* in the previous year and 2.0 *per mille* in the preceding quinquennium. The comparatively small difference between the death-rate of the sexes in 1930 is attributable to the lowest incidence of plague recorded in the year under review.

The death-rate under the main heads of mortality during the years 1929 and 1930 and during the previous five years is shown in table IV.

TABLE IV.

Head of mortality.	1930.	1929.	1925-29.	EXCESS OR DEFECT IN 1930 AS COMPARED WITH.	
				1929.	1925-29.
Cholera ...	0.06	0.11	0.18	-0.05	-0.12
Small-pox ...	0.26	0.38	0.50	-0.12	-0.24
Plague ...	0.03	0.10	1.61	-0.07	-1.58
Fever ...	20.59	19.61	18.67	+0.98	+1.92
Dysentery and Diarrhoea	0.60	0.64	0.54	-0.04	+0.06
Respiratory Diseases ...	2.52	2.53	2.66	-0.01	-0.14
Injuries ...	0.30	0.32	0.33	-0.02	-0.03
All other causes ...	5.32	5.05	5.05	+0.27	+0.27
Total ...	29.66	28.75	29.48	+0.91	+0.18

From a scrutiny of the above table it will be seen that the "fever" death-rate in 1930 was in excess of the corresponding figures of the previous year as well as of the mean of quinquennial years, whilst the death-rate from plague, small-pox and cholera showed marked diminution. In the absence of any febrile disease in epidemic form and the presence of epidemic malaria in the previous autumn it may be assumed that malaria was mainly responsible for the enhanced "fever" mortality and consequently for the increase in the total death-rate.

11. Eleven districts registered higher mortality and 18 lower than the provincial average (29·7). The six

The District death-rate.
Annual Form No. II.

districts exhibiting the highest death-rates were Gurgaon (40·1), Gujranwala (33·7), Mian-

wali (32·9), Montgomery (31·6), Amritsar (31·1) and Rohtak (30·9). The relatively high death-rates occurred almost entirely from "fevers." Among the districts which recorded a rate lower than the provincial death-rate were Simla (22·4), Gujrat (26·8), Sheikhupura (26·9), Attock (27·2) and in the remaining 14 districts it ranged between 27·4 and 29·4.

12. During the year the death-rate of the 206 towns which have adopted registration of vital statistics was

The Urban death-rate.
Annual Form No. VI-(B).

30·43 *per mille* as compared with a mean figure of 30·19 during the preceding five years,

which represents an increase of 0·24 *per mille* of population. The death rate of the three largest cities during the years 1929, 1930 and the mean of the years 1925-29 is given in Table V.

TABLE V.

Town.	1930.	1929.	1925-29.	Decrease in death rate in 1930 as compared with the year 1929.
Lahore City	31·55	34·63	31·86	- 3·08
Amritsar City	38·01	42·99	42·61	- 4·98
Multan City	34·96	41·86	34·73	- 6·90

Some of the smaller towns recorded exceptionally high death rates viz., Guru Har Sahai (69·77), Rajanpur (68·12), Kot Chhutta (58·00), Kot Mithan (57·12), Vehari (56·67), Vehari (53·10), Kabirwala (50·60), Jagadhri (49·12), Firozpur (49·10), Beri (48·97), Jalalabad (48·53), Dajal (46·93), Mukerian (46·46), Hodal (46·12), Alipur (44·85), Palwal (44·70), Phillaur (44·51), Karor (44·36), Ballabgarh (42·46) and Isakhel (42·45). With the exception of Isakhel where high death-rate was due to an outbreak of cholera, deaths from "fevers" were mainly responsible for the high figures though other causes also helped to swell up the death-rate.

13. The death-rate in rural areas was 29·57 *per mille* in 1930 as

The Rural death-rate.
Annual Form No. VI-A.

compared with 28·43 *per mille* during the preceding year and a mean death-rate of 29·40 *per mille* during the preceding five

years. The rural death-rate was above the quinquennial mean figure in 11 districts out of the total of 29, the highest rate being returned from Gurgaon (40·65), Gujranwala (34·60), Mianwali (33·41) and Montgomery (32·05). The cause of the high mortality rate is chiefly the prevalence of autumnal malaria in these districts.

14. Owing to the absence of any great epidemic of plague, cholera

Comparison of Urban and Rural
death-rates.

or malaria during the year under review the death-rate in urban areas exceeded, as usual, the death-rate in rural areas by 0·86 *per mille* of population as compared with 3·03 *per mille* in the previous year.

The death rate under the various main heads in urban and rural areas in the year 1930 and in the year previous to it is given in table VI below :—

TABLE VI.

Head of Mortality.	URBAN DEATH-RATE.			RURAL DEATH-RATE.		
	1929.	1930.	Increase or decrease in 1930.	1929.	1930.	Increase or decrease in 1930.
Cholera	0·35	0·31	-0·04	0·08	0·03	-0·05
Small-pox	0·72	0·51	-0·21	0·34	0·23	-0·11
Plague	0·05	0·01	-0·04	0·11	0·03	-0·08
Fevers	14·80	13·76	-1·04	20·20	21·42	+1·22
Dysentery and Diarrhoea	1·65	1·53	-0·12	0·52	0·48	-0·04
Respiratory Diseases ..	5·97	5·90	-0·07	2·11	2·10	-0·01
Injuries	0·37	0·37	..	0·32	0·29	-0·03
All other causes ..	7·55	8·04	+0·49	4·75	4·98	+0·23
Total ..	31·46	30·43	-1·03	28·43	29·57	+1·14

From a scrutiny of the figures quoted in the above table it will be seen that the urban death-rate under every head of mortality, with the exception of "fevers" and "plague" was higher than the rural death-rate. This corroborates the well known fact that malaria chiefly attacks the rural population. The relatively high mortality rates in towns, from respiratory diseases and diseases of the alimentary canal as compared with the rural areas have been repeatedly observed before, and the year under review, as will be seen from table VI, is not an exception to it. Want of fresh air, pure water, wholesome food and above all adequate conservancy arrangements are among the causes which contribute towards this high mortality and have often been clearly and cogently presented before the local bodies. The problems for the improvement of the health of the urban population are, therefore, a matter of great importance and special urgency and as a result of the representation recently made by this department for the complete re-organisation of conservancy arrangements in urban areas the matter is engaging the attention of municipal committees and other authorities concerned.

15. The monthly incidence of mortality in the Punjab varies in accordance with the epidemic constitution of the year. The month of January was

Seasonal mortality.
Annual Form No. III.

the unhealthiest month during the year,

when the total death-rate was 3·07 *per mille*. "Fever deaths" contributed largely towards it and were the results of after-effects of epidemic malaria of 1929. Next in order of severity came December (2·83 *per mille*) followed by November (2·76 *per mille*) and October (2·72 *per mille*) attributable to the prevalence of malarial fevers. The month of July with a death rate of (1·95 *per mille*) was as usual the healthiest month of the year, next in order coming March and April (2·11 *per mille* each). The weekly incidence of cholera, smallpox and plague is shown in charts II, III and IV (Appendix VII) respectively.

16. The number of children for the three age groups under one year is not known and the actual number of deaths in these age-groups, *viz.* :—

Age incidence of mortality.
Annual Form No. IV.

1. Not exceeding one month ;

2. Over one and not exceeding six months ;
 3. Over six months and under 12 months,
 can alone be given.

Among infants not exceeding one month in age the total mortality was 71,348 (38,828 males and 32,520 females) as compared with 71,745 (39,294 males and 32,451 females) in the preceding year. The mortality in this age group was therefore -397 (-466 males and +69 females) in defect of the figure of the previous year. The districts of Amritsar (4,799) Lyallpur (4,622), Jullundur (4,045), Ferozepore (3,943) and Gurdaspur (3,558) exhibited the largest number of deaths of infants during the first month of life.

Among Muslims the total number of deaths reported was 38,885 (21,481 males and 17,404 females), Hindus 30,926 (16,504 males and 14,422 females), Indian Christians 1,159 (633 males and 526 females) and other classes 378 (210 males and 168 females).

In the case of children over one month and not exceeding six months in age, the mortality amounted to 46,891 (25,210 males and 21,681 females) as compared with 49,197 (26,342 males and 22,855 females) in the preceding year. The defect in the year under review was therefore, 2,306 (-1,132 males and -1,174 females). The districts recording the largest number of deaths in this age-group were Lahore (2,715), Gurgaon (2,471), Ferozepore (2,366), Sialkot (2,316) and Multan (2,169).

Among the different classes the figures were :—

	<i>Total.</i>	<i>Males.</i>	<i>Females.</i>
Muslims	.. 26,262	14,186	12,076
Hindus	.. 19,790	10,568	9,222
Indian Christians	.. 624	338	286
Other Classes	.. 215	118	97

In children over six months and under 12 months, the mortality amounted to 46,600 (24,813 males and 21,787 females) as compared with 48,857 (25,820 males and 23,037 females) in the preceding year. The districts of Ferozepore (2,893), Gurdaspur (2,625), Hoshiarpur (2,618), Lahore (2,525), and Multan (2,127), were responsible for the largest number of deaths in this age group.

In the case of infants under one year of age, the total number of deaths was 164,839 showing an increase of 4,346 as compared with the quinquennial mean figure and a decrease of 4,960 as compared with the preceding year. The infant mortality rate or the number of deaths per 1,000 births in the year under review was 185.73 (189.14 males and 181.90 females) as compared with 186.20 (189.79 males and 182.18 females) in the previous year.

Classified according to different communities the death-rates in this group were recorded as under :—

	1930.		1929.	
	Males.	Females.		
			Males.	Females.
Muslims	207.09	177.72	221.60
Hindus	212.20	196.96	208.79
Indian Christians	169.02	148.87	142.53
				120.56

17. The death-rate by Religions and Classes.—The main features in respect of the incidence of deaths amongst the different religions and classes of the population are shown in the table VII.

TABLE VII.

Race religion or class.	DEATH-RATE.		DEATH-RATE PER MILLE OF POPULATION UNDER ONE YEAR.	
	Males.	Females.	Males.	Females.
Muslims	30·15	30·40	207·09	177·72
Hindus	27·05	30·60	212·20	196·96
Indian Christians	30·50	29·93	169·02	148·87

The figures given in table VII show that the total death-rate of Muslims was higher than that of other religions whereas the infant death rate of both sexes in Hindus was higher than the corresponding figures of other religions. The infant death-rate of males of all religions, as usual, was higher than the female death-rate.

18. Births and deaths amongst Railway Employees.—During the year under report 83 births (55 males and 28 females) and 54 deaths (38 males and 16 females) were registered at railway stations situated outside municipal limits as compared with 94 births (49 males and 45 females) and 73 deaths (43 males and 30 females) in the preceding year. Of the total of 54 deaths fevers accounted for 21, respiratory diseases 14, all other causes 9, dysentery and diarrhoea 5, injuries 4 and smallpox 1. Births and deaths occurring at railway stations situated within the limits of municipal and other towns which have adopted compulsory registration were reported and included in the figures of the civil population.

19. Births and deaths amongst Europeans and Anglo-Indians.—During the year there were 522 births and 121 deaths amongst Europeans and Anglo-Indians against 461 and 123, respectively in 1929. The deaths were classified as follows :—

All other causes 65, Respiratory diseases 28, fevers 25, dysentery and diarrhoea 2 and cholera 1.

20. Births and deaths in Cantonments.—4,073 births and 2,709 deaths were registered during 1930 among the non-military population of cantonments which represents a decrease of 290 and 63, respectively, as compared with the previous year. The deaths were classified as under :—

Fevers .. .. ..	.. .. ..	.. .. ..	.. .. ..	1,471
All other causes.. .. ..	.. .. ..	.. .. ..	.. .. ..	700
Respiratory diseases .. .. ..	.. .. ..	.. .. ..	.. .. ..	375
Dysentery and Diarrhoea .. .. ..	.. .. ..	.. .. ..	.. .. ..	100
Injuries .. .. ..	.. .. ..	.. .. ..	.. .. ..	46
Cholera .. .. ..	.. .. ..	.. .. ..	.. .. ..	10
Smallpox .. .. ..	.. .. ..	.. .. ..	.. .. ..	7

21. Summary of the state of public health in the year 1930.—The year 1930 with a total death-rate of 29·66 per mille although relatively a healthy year yet as measured by mortality compares somewhat unfavourably with 1929 which had a total death-rate of 28·75. The slight increase, however, in the death-rate may be only an apparent one as in calculating the rate, the actual increase in the total population during the year has not been taken into consideration. This fact is clearly pointed out in chart I where the annual birth and death-rate and the infantile mortality rate during the period 1867-1930 and 1880-1930,

respectively, are graphically shown. The high death-rate is usually associated with a high birth-rate. The provincial figure was 43·3 *per mille* as compared with an average birth-rate of 43·0 *per mille* during the preceding quinquennium. The infantile mortality rate in 1930 was lower as compared with that of the previous year.

The death-rate under the various heads of mortality during the year under review together with the average for the previous five years are shown in table VIII.

TABLE VIII.

Years.	Cholera.	Smallpox.	Plague	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	Total.
1930	0·06	0·26	0·03	20·59	0·60	2·52	0·30	5·32	29·66
1925-29	0·18	0·50	1·61	18·67	0·54	2·66	0·33	5·05	29·48
Increase or decrease in 1930.	-0·12	-0·24	-1·58	+1·92	+0·06	-0·14	-0·03	+0·27	+0·18

The diminished death-rates from plague, cholera and smallpox as will be seen from a study of the above table is an evidence of the practical absence in epidemic form of those diseases from the province during the year under review. The province was visited by an epidemic of malaria in 1929 and the increase in death-rate of 1·92 *per mille* observed in 1930 under "fevers" as compared with the quinquennial mean is mainly attributable to that epidemic as also to autumnal malaria.

The following table (IX), which speaks for itself, gives the registered birth and death-rates of the various provinces in India during the year 1930 :—

TABLE IX.

Serial No.	Name of province.	Birth-rate.	Death-rate.	Excess of birth-rate over death-rate.
1	Central Provinces	47·74	37·76	9·98
2	Punjab	43·26	29·66	13·60
3	Madras	39·83	25·52	14·31
4	Bombay	37·41	29·53	7·88
5	United Provinces	37·31	27·20	10·11
6	Bihar and Orrisa	36·2	29·6	6·6
7	Assam	31·35	21·40	9·95
8	Burma	28·87	20·82	8·05
9	Bengal	26·60	22·44	4·16
10	N.-W. F. Province	25·60	21·89	3·71

The consistently high birth-rate of the Punjab, which is usually about twice that of the United Kingdom, in spite of its high death-rate (chiefly as a result of the frequency and severity of epidemic visitations) is nevertheless an encouraging sign since it indicates that the somewhat severe epidemics to which the province is liable exercise little or no permanent effect on the virility and recuperative power of its inhabitants.

CHAPTER III.—Chief Diseases.

22. Cholera.—Cholera appeared in a mild form during the year under report accounting in all for 2,040 seizures Annual Form No. VII. and 1,181 deaths as compared with 4,510 seizures and 2,309 deaths in the preceding year. The cholera death-rate was 0·06 *per mille* (0·06 males and 0·05 females) as compared with 0·11 *per mille* in the previous year and a mean cholera death-rate of 0·18 in the preceding quinquennium. The annual cholera death-rate during the period 1867-1930 is shown graphically in chart II and from a study of which it will be seen that the mortality from cholera during the year under review was unusually small. The figures given in the Annual Form No. VII show that the districts with the single exception of Muzaffargarh were infected, at one time or the other. Owing to the prompt and vigorous action taken, in 5 districts only did the infection persist for some time and was responsible for 216 deaths in Hoshiarpur, 193 in Lahore, 130 in Mianwali, 102 in Jullundur and 79 in Amritsar.

Infection continued longer in the towns than in the rural areas with the result that the urban death-rate was 0·31 *per mille* or ten times the rural death-rate.

Out of a total of 206 towns, no less than 60 were involved returning 700 deaths. The towns chiefly affected were Lahore (119), Isakhel (38), Hissar (53), Jullundur (51), Hoshiarpur (37), Wazirabad and Kalabagh (36 each) and Baghbanpura (31).

In rural areas cholera was reported from 194 villages or 0·6 per cent. of the total villages of the Province; the total number of deaths was only 481.

Thus, as is usually the case nowadays, the incidence of cholera infection lasts longer and is higher in the towns than in the villages where, once the report of the outbreak of the disease is received, the measures adopted yield surer results.

Punjab is not a home of cholera and the province was free from the disease in winter up to the middle of February, when after the returns of pilgrims from the Kumbh Fair, Allahabad (which was held in January and February 1930) isolated cases occurred during February and March in Lahore, Hoshiarpur, Gujranwala and Amritsar. During April isolated cases, some suspected, others to be due to importation from Katas and Hardwar, occurred in five districts. In May sporadic cases or small outbreaks (total deaths 29) in which the source of infection could not be traced took place in the districts of Rawalpindi, Hoshiarpur, Multan and Amritsar. Infection continued to spread to the neighbouring districts and in June localized epidemics of cholera were reported from Mianwali, Lyallpur, Multan, Jullundur and Gurgaon. Small outbreaks of cholera, most of which were short-lived, continued throughout the province during the months of July, August and September. The height of the intensity as usual was in August.

In view of the danger of introduction of cholera by the pilgrims returning from Kumbh Fair, Allahabad, held during January and February and also because of the outbreaks of cholera which occurred in Kashmir during the month of November 1929, the anti cholera measures which are usually adopted in April were brought into force in the beginning of the year. In this connection, so far as the outward journey was concerned, every effort was made, short of compulsion, to induce intending pilgrims to get inoculated against cholera before their departure to Allahabad. District Medical Officers of Health were also directed to overhaul their arrangements for securing the prompt submission of cholera reports, to replenish their supplies of medicines and disinfectants and to establish cholera depôts on all important roads and railway stations. Owing to the season of the year as well as due to the precautionary measures taken by the Department, the infection imported as a result of this fair did not take root and spread in the province.

The infection imported later on from Hardwar and other places continued to spread for about six months but its manifestations were everywhere brought promptly under control due to the untiring energy and commendable promptitude displayed by the Public Health Staff throughout the period.

The Railway Administration offered their close co-operation to the Public Health Department for which they deserve our thanks.

23. Smallpox.—The recorded mortality from smallpox during the

Annual Form No. VIII. year under report was 5,341 ($0\cdot26$ per mille), as compared with 7,763 deaths ($0\cdot38$ per

mille) during the preceding year and a mean death rate of $0\cdot50$ per mille during the preceding quinquennium. A study of chart III will reveal that smallpox has a tendency to appear in epidemic form once every five years and 1930 being the ebb tide year it would be problematical to claim that the relatively low death rate in 1930 was due chiefly to more general adoption of vaccination during the preceding quinquennium.

As usual the disease prevailed throughout the year and is represented graphically in the diagram attached to chart III.

The maximum mortality (947) occurred in May when it began to decline showing 798 in June, 492 in July and 192 in August. In October the number of deaths fell to 89 and after that month it began to rise gradually and was responsible for 288 deaths in December.

Every district in the province was infected but the death rate from smallpox was above the provincial mean figure ($0\cdot26$) in the following districts :—

Hoshiarpur ($0\cdot73$), Hissar ($0\cdot54$), Ferozepore ($0\cdot52$), Gurgaon ($0\cdot47$), Ludhiana ($0\cdot39$), Ambala and Lahore ($0\cdot38$ each), Gujrat ($0\cdot37$), Rohtak ($0\cdot35$), Montgomery ($0\cdot34$) and Jhelum ($0\cdot32$).

The lowest rate recorded was in Muzaffargarh ($0\cdot01$), Dera Ghazi Khan and Jhang ($0\cdot03$ each) and Mianwali ($0\cdot04$).

In regard to age distribution only 29 per cent. of the total deaths occurred amongst children under one year of age whilst, in the case of children over one and under 10 years of age, the percentage was 52, which emphasises the fact that it is not possible to minimise the spread of infection to a substantial extent till re-vaccination becomes as common as primary vaccination is to-day.

As regards sex, the female death rate, as usual, slightly exceeded ($0\cdot02$ per mille) the male death rate (a circumstance which may probably be ascribed to the fact that the re-vaccination of adult females is less complete than is the case with males).

Smallpox is normally more prevalent in Urban than in Rural areas and the year under report proved no exception to the rule since the urban death-rate was $0\cdot51$ per mille as compared with $0\cdot23$ per mille in the rural areas. The higher death rate in towns may partly be due to more complete reporting but it is probable that the congestion prevailing in urban areas is responsible for the greater exposure to infection of the urban population.

Of the three largest towns, Multan reported smallpox death-rate of $0\cdot70$ per mille, Lahore $0\cdot35$ per mille and Amritsar $0\cdot29$ per mille, the corresponding figures for the previous year being $0\cdot17$, $0\cdot70$ and $0\cdot89$ per mille. The comparatively high death-rate in Multan City is ascribed to the visitation of smallpox in epidemic form after the five years cycle. Out of the 206 towns 115 registered deaths from smallpox. Some of the smaller towns suffered even more than the big cities, the death-rate in Kabirwala being as high as $8\cdot84$ per mille, Sri Gobindpur $5\cdot05$ per mille and Hariana $5\cdot00$ per mille.

The anti-smallpox measures taken and progress made in vaccination during the year under review is dealt with in chapter IV.

24. Plague.—For the fourth year in succession the toll of human life exacted by plague was conspicuously small. The mortality recorded during the year under review was in fact the lowest on record since the commencement of the present plague cycle in the province. The total number of deaths in each year since the disease established itself is as follows :—

Year.	Number of deaths.	Year.	Number of deaths.
1901	14,959	1916	3,278
1902	171,302	1917	8,775
1903	2,05,462	1918	95,615
1904	396,357	1919	11,068
1905	334,897	1920	6,137
1906	91,712	1921	2,553
1907	608,685	1922	7,780
1908	30,708	1923	50,086
1909	35,655	1924	251,261
1910	135,483	1925	37,630
1911	175,345	1926	108,287
1912	29,805	1927	8,452
1913	17,877	1928	8,282
1914	64,010	1929	2,053
1915	221,966	1930	554

The plague death rate in 1930 of British districts was 0·03 *per mille* (0·02 males and 0·03 females) as compared with 0·10 *per mille* (0·08 males and 0·12 females) in the previous year and 1·61 *per mille* in the preceding quinquennium. As recorded elsewhere the higher death-rate of females as compared with that of males is ascribed to the greater exposure to infection of the former owing to their domestic habits which makes them spend most of their time indoors.

Five districts out of a total of 29 were infected with plague as compared with 13 districts during the previous year. The total number of villages infected in 1930 was 89 as against 259 in 1929. Three districts situated in the submontane region of the Himalayas which were chiefly affected and recorded mortality in excess of the provincial mean, are as follows :—

	Deaths.	Rate per mille.
Gurdaspur	262	0·31
Sialkot	215	0·25
Hoshiarpur	63	0·07

From the remaining 2 districts, *viz.*, Rohtak and Karnal, only sporadic and imported cases were reported. Out of the 206 towns only Sialkot and Dasuyah were infected during the year as compared with 9 in the preceding year. As usual the disease was more severe in the rural circles than in the urban areas, the death-rate being 0·03 and 0·01, respectively, as compared with 0·11 in the case of rural and 0·05 in that of urban areas during 1929. The three largest towns, *i.e.*, Lahore, Amritsar and Multan remained free from plague throughout the year.

Among the Punjab States only Jind was infected with plague.

The annual death-rate in the Punjab from plague from the time of its inception in 1898 up to the end of the year under report is shown in chart IV.

Plague revived in the autumn of the year 1929 in Gurdaspur district, which in January and February 1930 together with Sialkot district constituted the main endemic area. On 25th March a fatal case of bubonic plague imported from village Behari Garh of Saharanpur district (United Provinces) was reported in Sonepat town of Rohtak district. In April two mild endemic foci exhibited themselves in the districts of Hoshiarpur and Gurgaon which completely disappeared by the end of June and the province was declared free from plague. In October again, the disease recrudesced in Gurdaspur and by the end of the year Sialkot and Hoshiarpur also became infected. The weekly incidence of seizures and deaths from plague as will appear from the diagram attached to chart IV reached its maximum intensity in April. A rapid decline followed in May and the disease died out by the end of June.

The main features of the year, therefore, were :—(1) the steady shrinkage of the endemic area combined with a tendency of the disease to persist in the relatively humid districts in the foot-hills of the Himalayas ; (2) the low diffusive power and the low intensity of the epidemic and (3) its early and complete decline in June and its re-appearance in a restricted number of localities in the autumn. The disease was of the bubonic type although a few cases of the pneumonic plague were also reported.

Preventive Measures.—Anti-plague measures were conducted on the usual lines. During the off season, August to October, rat destruction by means of trapping and poisoning was carried out as far as possible systematically in and around the towns and villages in which plague or rat mortality had occurred during the previous plague season. The total number of anti-plague inoculations performed in the infected localities amounted to 28,764 as compared with 59,382 in the preceding year. The decrease is due to the mild nature of the epidemic in the year under review. There is, as a rule, no demand for inoculation until plague assumes epidemic proportion.

The unprecedented decline in the plague mortality is largely attributable to the unfavourable meteorological conditions for the prevalence of the disease but the great energy displayed by the Public Health Staff in carrying out the anti-plague measures and thus reducing the intensity of the disease and also human suffering is worthy of commendation.

25. "Fevers."—The deaths registered under the head "fevers,"

Annual form No. X.

numbered 422,377 as compared with 402,429 in the previous year. The "fevers" death-

rate was 20·59 *per mille* (19·85 males and 21·47 females) as compared with 19·61 *per mille* (18·68 males and 20·73 females) in the previous year and a mean death-rate of 18·67 *per mille* in the preceding five years.

The annual "fever" death-rate during the period 1867—1930 is shown in chart V, from a scrutiny of which it will be seen that there is a slight rise during the year under review as compared with 1929 when a portion of the province was visited by an epidemic of malaria. It is no doubt true that "fevers" is a comprehensive term and besides malaria includes a large number of diseases, more especially plague, relapsing fever and influenza ; but in view of the well marked seasonal characteristics exhibited by these epidemic diseases it is possible to determine the relatively high "fever" mortality in 1930. From a reference to the Annual Form No. X where the monthly "fever" mortality is given it will be seen that in 1930 there is a marked diminution (-34,504) in the "fever" mortality during the months of October, November and December only if compared with the figures of the corresponding months in the preceding year ; whereas in the remaining nine months the figures have exceeded those of 1929. This excess is conspicuously marked during the months of January and February the figures being 26,040 in excess of that of the previous year.

A study of the above data permits of the following conclusion :—

1. Because of a diminished "fever" mortality during the months of October, November and December in the year under review as compared to the corresponding months in the previous year it may be safely inferred that the excess in the "fever" death-rate in 1930 over the figures for the previous year was not attributable to epidemic malaria.
2. The exceedingly high "fever" mortality during the months of January and February 1930 in the absence of influenza in winter and in the presence of an epidemic of malaria in autumn 1929, may reasonably be attributable either to the direct consequence of 1929 malaria epidemic or to its sequelæ.
3. As a corollary of the above, therefore, the increase in the "fever" mortality in 1930 should be regarded to be the ultimate result of epidemic malaria of 1929.

In 19 districts the "fever" death-rate was higher than in the previous year, the most conspicuous being Gurgaon, Rohtak, Karnal and Sheikhpura, where the rate was 7.78, 4.60, 3.99 and 3.93 *per mille*, respectively in excess.

Fifteen districts exhibited a "fever" death-rate in excess of the provincial mean figure, the most prominent being Mianwali (28.00), Gujranwala (27.52), Muzaffargarh (27.04), Montgomery (25.93) and Gurgaon (25.49).

The "fever" death-rate in towns was as usual lower than the death-rate in rural areas the figures being 13.76 *per mille* and 21.42 *per mille*, respectively, the corresponding figures in the year 1929 being 14.80 *per mille* and 20.0 *per mille*, respectively. It may be remarked that although the province was generally free from an epidemic of malaria, the malaria forecast correctly designated certain areas in Gurgaon, Ferozepore and Montgomery where mild outbreaks of the disease would occur during the autumnal months.

Preventive Measures.—Little need be said on this subject. The malaria forecast issued on the 31st August predicted that the province will remain free from a widespread epidemic of malaria but mild foci of the disease will develop in certain districts. On the basis of this knowledge, particular attention was paid in those localities and the scheme of quinine distribution by means of quinine depôts which were successfully enforced during epidemic of the previous year was again adopted; while anti-malaria measures on usual lines were carried out in other districts to reduce the intensity of autumnal malaria. In this connection 141 lbs. of quinine was supplied from this department free of charge to the infected districts requiring such help.

In all 5,509 depôts and sub-depôts were formed and the total amount of quinine distributed by them was 1,746 lbs.

26. Dysentery and Diarrhoea.—There were 12,247 deaths recorded under this head of mortality as compared Annual Form No. XI. with 13,208 in the previous year, the death rate being 0.60 *per mille* (0.59 males and 0.61 females) as against 0.64 *per mille* in the preceding year and a mean death-rate of 0.54 *per mille* in the previous five years.

The most striking feature exhibited in Annual Form No. XI is the high death-rate recorded in the sub-Himalayan districts of Simla, Kangra and Rawalpindi, which is attributed to the prevalence of hill diarrhoea and enteric fever. Due mainly to bad conservancy arrangements, the urban death-rate was as usual nearly three times the rural death-rate, the former being 1.53 *per mille* and the latter 0.48 *per mille*, as compared with 1.65 and 0.52 in the preceding year. Some of the large towns recorded a distinctly high death-rate more especially Vehoa of Dera Ghazi Khan district (7.64), Firozpur of Gurgaon district (5.50), Dhariwal of Gurdaspur district (4.18) and Beri of Rohtak district (4.02). The highest

figure in Vehoa is attributed to the presence of guineaworm in the water.

27. Respiratory Diseases.—The total number of deaths from diseases of the respiratory system accounted

Annual Form No. XII.

for 51,678 deaths or 2·52 *per mille* which

shows a decrease of 0·01 and 0·14 *per mille* when compared with the figures for the last year and the average for the previous five years, respectively. The provincial rate was exceeded in eight districts, but the excess was most marked in Ambala where the rate was 11·69 *per mille* followed by Simla 6·79, Kangra 6·04 and Amritsar 4·30. It was as low as 0·51 *per mille* in Sheikhupura, 0·65 in Muzaffargarh, 0·74 in Dera Ghazi Khan and 0·86 in Montgomery. The respiratory diseases death-rate *per mille* in Lahore City was 7·11, in Amritsar City 13·70 and Multan City 11·11; it was also exceptionally high in the towns of Shahpur Civil Station (28·21), Vehari (26·55), Palampur (18·90), Nurmahal (17·38) and Dharmshala (12·07).

The urban and rural death-rates were 5·90 and 2·10 *per mille*, respectively as against 5·97 and 2·11 in the preceding year. The death-rate from respiratory diseases is nearly three times in the urban as compared with rural areas. This is more or less a constant feature in the province and is said to be due to the higher incidence of pulmonary tuberculosis in towns as a result of over-crowding, defective conservancy arrangements, and other gravely insanitary conditions prevailing in these quarters which help to form fertile breeding ground for the disease. On the other hand so far as it is known pulmonary tuberculosis is a relatively rare disease in rural areas where light and fresh air are more freely available.

28. Influenza.—As a result of unusually intense waves of cold in January and February and December cases of mild catarrhal fever or which might be termed as a mild type of influenza were detected at certain hospitals and dispensaries in Dera Ghazi Khan, Muzaffargarh, Montgomery and Amritsar districts. Out of a total number of 562 cases who received medical treatment only nine deaths are reported to have taken place in Montgomery district. In addition cases of influenza were reported from Mochh, Abba Khel and Rokhari in Mianwali tahsil which caused 72 deaths during the year. The patients, their contacts and the persons in the neighbourhood were given the necessary medical treatment and advice. The infection was localised in all cases and did not spread to the adjoining localities.

29. Injuries.—During the year under report 6,103 deaths (0·30

Annual Form No. VI-A and B. *per mille*) occurred as the result of injuries, as compared with 6,636 (0·32 *per mille*) in

the previous year and an average death-rate of 0·33 during the previous five years.

The deaths were classified as follows :—

Suicide	.. 247 (143 males and 104 females).
Wounds	.. 784 (640 males and 144 females).
Accidents	.. 4,351 (2,492 males and 1,859 females).
Rabies	.. 95 (70 males and 25 females).
Snake-bite	.. 447
Injuries inflicted by wild beasts.	179

The figures under the above heads exhibit only slight fluctuations from year to year, but attention may be called to the steady increase in the number of fatal accidents during the past few years owing possibly to the increased use of motor vehicles and electricity; it is satisfactory to note that a decrease of 622 was recorded under this head during the year under review. The number of deaths ascribed to rabies shows a

decrease of 22 as compared with the last year and 50 when compared with the mean figure of the preceding five years. As usual the male death-rate from hydrophobia greatly exceeded the female death rate. During the year 2,651 patients (154 Europeans and 2,497 Indians) from the Punjab underwent anti-rabic treatment at the Pasteur Institute, Kasauli (which receives substantial aid from the Punjab Government) as compared with 1815 (158 Europeans and 1,657 Indians) in the preceding year. In addition 2,887 persons (199 Europeans and 2,688 Indians) underwent treatment at the Pathological Laboratory of the King Edward Medical College, Lahore, against 2,596 (214 Europeans and 2,182 Indians) in the year 1929. The Lahore centre, therefore, continues to win the confidence of the people in spite of the fact that certain cases have to be directed to Kasauli for special treatment with etherised vaccine.

30. All Other Causes.—The total number of deaths registered under this head was 109,101 (58,363 males and 50,738 females). This figure represents a death-rate of 5·32 *per mille* which is 0·27 *per mille* in excess of that for the previous year as well as of the quinquennial average.

The highest death-rates were recorded in the districts of Ludhiana (10·8), Gurgaon (10·4), Simla (9·4) and Gurdaspur (8·4).

CHAPTER IV—Vaccination.

[THIS CHAPTER AND ALL THE STATISTICAL TABLES CONNECTED WITH VACCINATION REFER TO THE PERIOD APRIL 1ST, 1930—MARCH 31ST, 1931, INSTEAD OF THE CALENDAR YEAR 1930.]

31. Administration.—The administrative and other arrangements in connection with vaccination during the period under review remained the same as in the previous years. The total number of Superintendents of Vaccination and vaccinators employed by local bodies during the years 1929-30 and 1930-31 was as follows :—

	1929-30.	1930-31.
Superintendents of Vaccination	.. 37	37
Vaccinators	.. 489	497
Total	.. 526	534

The number of vaccinators was increased by 8 during the period under review. In Multan District 12 additional vaccinators were engaged, four in Lyallpur, three in Amritsar, two in Muzaffargarh and one each in Gurgaon, Ambala, Rawalpindi and Mianwali, but in Hissar the staff was reduced by six, in Jullundur, Ferozepore and Sialkot by two and in Karnal, Lahore, Shahpur, Jhelum and Jhang by one. Considerable progress has been made in giving effect to the policy of appointing one vaccinator to each thana and it is gratifying to see that with the exception of Hissar and Muzaffargarh districts this desideratum has been brought nearer to fulfilment. No change took place in the strength of the Special Staff (Provincial) of Vaccinators or those employed in the tribal area beyond the borders of Dera Ghazi Khan district. The average number of persons vaccinated by each vaccinator during the year 1930-31 was 3,356 as compared with 3,084 in the preceding year.

32. Number of Vaccinations.—The total number of operations performed by all establishments during the period under review was 1,729,082 as compared with 1,588,729 in the previous year. Thus there was not only a

marked increase in the number of operations done but the steady improvement in the vaccinal condition of the population was maintained as shown below :—

<i>Year.</i>	<i>Total number of operations.</i>
1926-27	.. 1,242,090
1927-28	.. 1,292,384
1928-29	.. 1,504,656
1929-30	.. 1,588,729
1930-31	.. 1,729,082

Out of the total number of vaccination operations performed during the year under report the number of primary vaccinations was 868,368 and of revaccinations 860,714 as compared with 870,908 and 717,821, respectively in the preceding year.

The measure of success achieved in the efforts made to extend vaccination during recent years is illustrated in Chart VII and the details are given below :—

<i>Year.</i>	<i>Primary Vaccinations.</i>	<i>Re-vaccination Operations.</i>
1926-27	.. 720,328	521,762
1927-28	.. 765,094	527,290
1928-29	.. 858,983	645,673
1929-30	.. 870,908	717,821
1930-31	.. 868,368	860,714

It would thus appear that in the number of primary vaccinations the level reached in previous year has been well maintained in spite of the fact that because of smaller number of births in the beginning of the year the number of children available for vaccination were fewer.

In regard to the number of re-vaccinations, the increase has been the greatest of any one year during the last five years and affords definite proof of the fact that the campaign started to protect the adult population by re-vaccination has been taken up in right earnest by the District Medical Officers of Health ; in the absence of any legal provision to that effect, it shows that the vigorous educative propaganda carried out by the Department is bearing fruit specially so in a year when the incidence of smallpox was very mild.

The progress made during the past 6 years in extending vaccination is illustrated in Chart VII.

(1) *District Board Staff.*—The total number of operations performed by the Vaccination Staff of District Boards and Municipal Committees was 1,615,524 as compared with 1,479,539 in the previous year. The number of primary and re-vaccinations was 835,029 and 780,495, respectively, which represents a decrease of 4,834 in the number of primary vaccinations and an increase of 140,819 in the number of re-vaccinations. The small falling off in primary vaccinations is ascribed to the absence of smallpox in epidemic form and to the smaller number of children available for vaccination owing to fewer births in certain districts in the beginning of the year. Fourteen districts showed an increase in the number of primary vaccinations as compared with the preceding year, conspicuous being Montgomery (3,775) ; Lyallpur (2,414) ; Gurdaspur (2,339) ; and Hissar (2,190). On the other hand in 15 districts the figures of the preceding year were not maintained, in Karnal the decrease was 4,298, in Hoshiarpur 3,695, in Gurgaon 3,324, in Jhelum 3,124 and in Muzaffargarh 2,516.

The figures in respect of revaccination show an increase as compared with the previous year in 21 districts, the largest figures being recorded in Rawalpindi (28,506) ; Muzaffargarh (18,755), Gurgaon (15,916) and Multan (15,699).

(2) *Municipal Staff.*—In the case of municipal towns, the total number of operations performed by municipal vaccinators during the period under review was 167,575 of which 83,508 were primary and 84,067 were re-vaccinations as compared with 172,948 (85,411 primary and 87,537 re-vaccinations) in the previous year.

(3) *Special Staff.*—The total number of vaccinations performed by the Special Staff (Provincial) during the year under report was 76,836 (22,019 primary and 54,817 re-vaccinations) as compared with 80,574 (23,206 primary and 57,368 re-vaccinations) in the preceding year. The decrease of 1,187 in the primary and of 2,551 in the re-vaccinations is ascribed to the fact that thorough vaccination was carried out during the preceding two years in the localities visited by the staff during the year under report and, therefore, the number of children available for vaccination was comparatively less. Also one of the posts of vaccinators remained unfilled since November 1930 and no substitutes were employed during temporary leave vacancies of some vaccinators.

(4) *Dispensary Staff.*—During the year 1930-31 the number of primary operations and re-vaccinations performed by Medical Officers in charge of dispensaries was 3,700 (1,711 primary and 1,989 re-vaccinations) as compared with 5,053 vaccinations (1,680 primary and 3,373 re-vaccinations) in the previous year.

(5) *Cantonment Staff.*—In Cantonments the total number of operations carried out during the year under review was 28,519 (7,016 primary and 21,503 re-vaccinations) as compared with 20,803 (4,799 primary and 16,004 re-vaccinations) in the preceding year. This substantial increase in the number of primary vaccinations and re-vaccinations as compared with the previous year is an evidence of the success that has been attained to protect the civil population residing in the Cantonments.

(6) *Railway Employees.*—During the year under review 3,017 vaccinations (548 primary and 2,469 re-vaccinations) were carried out by railway medical officers amongst persons residing in areas under the jurisdiction of the North-Western Railway. The corresponding figures for the previous year were 3,221 total operations (1,113 primary and 2,108 re-vaccinations).

33. *Cost of Vaccination.*—The total expenditure on vaccination including the cost of the Punjab Vaccine Institute, the Provincial Vaccination Staff and the Vaccinator employed in the Political area of Dera Ghazi Khan district, detailed in the Statement No. II during the year under review amounted to Rs. 3,34,671-15-4 as compared with Rs. 3,97,299-13-3 in the previous year. The decrease of Rs. 62,627-13-11 is mainly accounted for by the fact that under instructions received from the Public Health Commissioner with the Government of India and following the practice obtaining in other provinces of India the cost of Circle Assistant Directors of Public Health in the Punjab and their staff and contingencies which had hitherto been included has been excluded. Calculated on these figures the average cost of each successful vaccination in the Punjab was Re. 0-4-2 as against Re. 0-5-4 in the preceding year.

The average cost of each successful vaccination performed by vaccination staff of municipal committees, district boards and Cantonments was Re. 0-3-5 as compared with Re. 0-3-6 in the previous year. This is accounted for chiefly by the larger number of successful vaccinations performed during the year.

The average cost of each successful operation carried out by the Special Staff was Re. 0-11-1 as compared with Re. 0-8-2 in the preceding year the increase being due to the fact that the post of Assistant Director of Public Health, Punjab (Technical) Vaccination, was occupied by an officer of the Indian Medical Service who was in receipt of a higher

salary and also because of the arrears of travelling allowance drawn by members of the Special Vaccination Staff. The smaller number of vaccinations performed is also partly responsible for the increase in the average cost.

34. Success of Vaccination.—The potency of the vaccine lymph, Vaccination Statement No. I. was as usual, extremely satisfactory. The percentage of success in the case of primary vaccinations and re-vaccinations reported by all establishments was 97·96 and 68·80, respectively, as compared with 98·14 and 68·29 respectively in the preceding year. The results reported by the various establishments were as follows :—

	Primary Vaccinations.	Re-vaccinations.
District and Municipal Staff	97·98	69·84
Special Staff	..	57·56
Dispensary Staff	..	66·48
Cantonment Staff	..	56·16

The annual vaccination inspections were carried out by the provincial administrative staff with a view to check the accuracy of the figures recorded in the district and village vaccination registers.

35. Vaccination Inspections.—The total number of vaccinations Vaccination Statement No. IV. inspected by the Assistant Directors of Public Health during the year under report was 15,725 primary and 5,620 re-vaccinations, respectively, the percentage of success being 92·99 in the case of primary operations and 48·70 in the case of re-vaccinations.

Civil Surgeons, District Medical Officers of Health and Municipal Medical Officers of Health inspected 123,911 primary vaccinations and 88,566 re-vaccinations, the reported success rate being 96·73 per cent. and 64·18 per cent., respectively.

Superintendents of Vaccination inspected 366,678 primary vaccinations and 264,377 re-vaccinations. The percentage of success being 94·46 and 55·35, respectively.

The success-rate reported by vaccinators themselves was 97·96 in primary and 68·80 per cent. in re-vaccination.

36. Vaccination in Indian States.—The reports received from the Indian States that employ their own vaccinators are summarised below :—

State.	NUMBER OF VACCINATIONS.		SUCCESS RATE.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.
Patiala	109,843	44,961	99·10	79·77
Kapurthala	10,587	2,112	98·02	75·38
Faridkot	7,566	1,881	98·79	47·53
Jind	9,997	7	99·16	100·00
Bahawalpur	23,842	615	99·89	95·41
Nabha	10,930	260	95·22	77·25

37. Diagram.—A diagram showing the death-rate from smallpox per 10,000 of population during the year 1930-31, the average recorded death-rate from smallpox for the five years ending 1929-30, the proportion of successful vaccinations during the year 1930-31 and during the preceding six years per 10,000 of population in each district of the province is appended.

38. Conclusion.—A scrutiny of the diagram and charts appended to the report will afford conclusive evidence to the effect that since the Public Health Department took charge of vaccination there has been a noticeable increase in the number of vaccinations and also an appreciable decrease in the number of deaths from smallpox. The steady progress made during the year in getting extended the Vaccination Act to the rural areas under the Punjab Vaccination Law Amendment Act, 1929, is hopeful augury for the future.

CHAPTER V.—Urban and Rural Sanitation.

38¹ Whether urban or rural, the sanitary problem is essentially the same. It is true that the mode and the manner of administration do vary, dependent as they are on population, type of people, topographical configuration and environmental conditions. But none can fail to notice the regular gradation in the nature of the problem from the town to the village.

If in the towns there is the problem of defective conservancy the presence of rubbish heaps in and around the villages is a conspicuous feature of rural areas. The basket, the bullock-cart and the donkey are the means employed for the removal of filth in towns as well as in the villages. The disposal in both the cases is by dumping raw filth into agricultural land. Nuisances are committed in the open wherever an opportunity offers itself. The rural areas lack in public latrines, but then even in most of the large towns of the Province one would look in vain for a public latrine or urinal worth the name. Incinerators are as much a necessity in the towns as in the villages.

In regard to water supply, wells for drinking water abound and chances of contamination are much the same. In villages where water level is not very low wells are numerous enough to create nuisance for want of drainage.

Rat infestation is equally common and housing of cattle, both cows and others, present obstacles which require solution both in towns and villages.

If there is no sanitary law in the rural areas, the sanitary provisions of the Municipal Act if not enforced effectively lie impotent, the net effect being more or less the same. It may be easier to get a manure heap removed from a village than to get a "purnala" drain covered in a town if the owner of the house knows how to exercise influence and evade compliance of law. Sanitary law has no usefulness for a practical sanitarian if its provisions remain inoperative.

The crux of the problem is not only the provision of effective sanitary law but also the efficiency and adequacy of the administrative machinery as well as power with the Public Health Department to be able to enforce the law should the machinery fail to function properly.

(1) Urban Sanitation.

39. The details of sanitary improvements in the towns completed or in progress during the year are enumerated in the annual report of the Superintending Engineer, Public Health Circle, which is reproduced in Appendix I and in an extract from the proceedings of the Urban Sanitary Board which is given in Appendix III.

A perusal of Appendix I will show that the Sanitary Engineering Department had under construction during the year 34 provincial sanitary works on behalf of Government and 32 contribution works for local bodies. In addition to this 10 preliminary projects estimated to cost Rs. 11,59,739 and 38 detailed projects (17 provincial and 21 contribution works) estimated to cost Rs. 36,42,520 were prepared

by the Executive Engineers of the Public Health Divisions whilst preliminary or detailed projects of 25 works at a total estimated cost of Rs. 2⁰,80,410 were prepared under the supervision of the Superintending Engineer, Public Health Circle. It is scarcely possible to gauge from these bare statements the transformation that is steadily taking place in the sanitary conditions of urban areas in this province but it cannot be too often affirmed that unless these sanitary works are efficiently and adequately maintained they will hardly exercise any material effect upon public health. The conservancy arrangements in towns, however, in spite of the attention of local authorities being repeatedly drawn, to them, still remain very primitive and unsatisfactory, and unless a fundamental change is effected in the existing methods of collection, removal and disposal of sewage and refuse, this serious defect will continue to be the chief cause of the high degree of insalubrity in urban areas.

The aggregate income of municipal committees, 107 in number, after excluding opening balances (Rs. 26,58,923) and Rs. 13,27,313 under the head extraordinary receipts and debts, amounted to Rs. 1,39,23,431 as compared with Rs. 1,35,42,040 in the previous year.

The expenditure incurred on public health measures including a sum of Rs. 4,87,971-2-0 received from Government in the shape of grants-in-aid amounted to Rs. 46,70,361-2-0 as compared with Rs. 45,44,552-3-0 in the year 1928-29.

The percentage of income spent upon public health measures was 33.54 per cent. whilst the cost of sanitary measures per head of population of urban areas was Rs. 2-8-6. The expenditure in the 107 municipal towns in respect of public health measures in the year 1929-30 and the previous years is given in table XI.

TABLE XI.

Heads.	1928-29		1929-30.	
	Expenditure.		Expenditure.	
Water Supply	14,08,439	14,10,628
Conservancy	17,78,435	18,00,004
Drainage	8,91,758	5,30,911
Public Health Staff	2,24,332	2,38,738
Vaccination	41,085	44,509
Anti-epidemic measures	73,947	51,262
Markets and Slaughter-houses	56,497	50,001
Registration of Births	12,581	12,372
Burial and Burning of Paupers	11,429	16,267
Infectious Diseases Hospitals	40,335	42,175
Other Sanitary Equipments	21,816	27,698

In case of small towns 113 in number the total income excluding opening balances and extraordinary receipts, was Rs. 10,31,869 whilst the expenditure on public health measures was Rs. 2,24,572.

Water Supply.—The revenue derived from the sale of water continued to show marked deficit as compared with the cost incurred in supplying water to the public. This unsatisfactory feature

can only be rectified by efficient municipal administration and by the enforcement of the model water supply bye-laws approved by Government.

Conservancy.—During the year under review 2,067.76 acres of land were under sewage irrigation in nine towns as compared with 2,155.63 in 1929, showing thereby a total decrease of 87.87 acres. Lahore alone has been responsible for this decrease, where 95 acres went out of irrigation whereas Jullundur showed an increase of 7.13 acres. There was a decrease of Rs. 830 in the income derived from land under sewage irrigation. The total income derived from the sale of street sweepings of nine municipal towns amounted to Rs. 1,02,463.3-10 as compared with Rs. 64,714.11-0 in 1929 thus showing an increase of Rs. 37,748.8-0 over that of the previous year. Amritsar city again contributed Rs. 39,862 towards this income whilst Lahore showed a deficit of Rs. 6,942.8-0 as compared with the previous year.

It is hoped that other municipalities especially Lahore will follow the good example of Amritsar and will largely add to their income by better management of their sewage farms which can be made to yield a larger revenue than is at present obtained from this source.

Slaughter-houses and Markets.—Little advance has been made towards the improvement of slaughter houses and markets, most of which are far from satisfactory. It is, however, gratifying to note that the Rawalpindi municipality has taken up the suggestion of levying adequate fees on the animals slaughtered and its income from this source has increased from Rs. 960 to Rs. 3,200.

Infectious Diseases Hospitals.—The presence of suitably equipped and efficiently administered infectious diseases hospitals in large towns is one of the civic needs of the day. The "so-called" infectious diseases hospitals that exist in Lahore, Amritsar and Lyallpur hardly deserve the name. The cost of maintenance of these hospitals was as follows :—

	1929-30.			
	Rs.			
Lahore	25,160
Amritsar	2,979
Lyallpur	1,036
Simla	13,000
	<hr/>			
Total			..	42,175
	<hr/>			

(2) RURAL SANITATION.

40. During the year 1929-30 the aggregate income of the District Boards, excluding opening balances aggregating Rs. 26,38,099, amounted to Rs. 2,15,36,394 whilst their expenditure upon public health measures was Rs. 6,16,518 or after excluding grants-in-aid from Government of Rs. 61,984, Rs. 5,54,534 which latter sum represents 2.6 per cent. of their income. Notwithstanding continued financial stringency and the apathy of the populace continued progress has been maintained during the year in the improvement of rural sanitation. The sustained efforts of the department in regard to public health matters have sown the seed broadcast throughout the province. Most of it may have fallen on barren soil ; in other cases the green sprouts, after an initial struggle for existence, shrivelled up amidst the cold blasts of lack of continuous co-operation as well as insufficiency of the immediate supervising staff, yet in others the plant has survived and shows signs of steady growth and the beneficial effects are visible in the achievements which are to the credit of the department. Village after village is now adopting the simple sanitary regulations administered by committees set up under the authority of the district board or the rural community council or by regular

panchayats. The institution of District Sanitary Tournament introduced by the District Medical Officer of Health in the Ferozepore District for the improvement of rural sanitation on a voluntary basis is a feature which possesses potentialities of immense good in the future.

Rohtak district has established a unique record in the improvement of rural sanitation where 503 villages out of a total of 773 have adopted the regulations and 40,711 manure pits have been dug. Jhelum, Dera Ghazi Khan, Muzaffargarh, Amritsar, Ambala and Karnal in particular and nearly all districts in general have achieved considerable progress on the same lines. Still much remains to be done. Diffusion of sanitary ideals is a slow process. At others it is difficult to maintain initial achievements for lack of staff.

The number of wells cleaned during the year was 15,264 and 322 wells were repaired at a cost of Rs. 24,267.

As a result of the the activities of the Rural Sanitary Board, great progress was made in improving the village water supplies in waterless tracts and in providing piped water supplies in places where important religious fairs are held. The Budha Nala Drainage Scheme, which is designed to dewater parts of Ludhiana District in the vicinity of the Sirhind Canal was completed during the year.

A large number of sanitary works of public utility were executed at the expense of individuals, the nature of gifts, their cost and the names of donors, which cannot be given here owing to lack of space, are detailed in Appendix IV.

(3) RELIGIOUS FAIRS.

41. The sanitary arrangements of all the fairs and religious gatherings held in the province during the year, were as usual supervised by the personnel of the Public Health Department ; those of the important fairs by the Assistant Directors of Public Health, while of the others by the District Medical Officers of Health and their staff. The general sanitation of all these fairs shows marked continued improvements on the lines laid down by the Department and constant endeavour is being made to attain the standard aimed at. The anti-epidemic measures enforced resulted in the conspicuous absence of infectious diseases at these numerous temporary congregations of people.

Advantage was also taken of these big gatherings to convey the message of health to the villagers by means of health exhibitions, wherein were displayed various models and posters, giving the causes, main symptoms and directions for the prevention of various epidemic diseases. These exhibitions were supplemented by lectures and demonstrations of instructive cinema films which provided both recreation and education in health matters to thousands of people. The financial assistance rendered by the local bodies in the steady improvement of the sanitary arrangement of fairs is encouraging but is still only a small fraction of the total expenditure.

Special mention must be made of Phalgu Fair, held at village Pharal (Tahsil Kaithal) in Karnal District which was attended by over a lakh people on the final day. The fair was held in September and was attended by persons derived from some of the localities infected with cholera and consequently it was feared that the disease might be introduced into the fair with the consequent danger of its widespread dissemination throughout the province. The efficient conservancy arrangements and the rigid control over the water supply, however, averted this danger and there did not occur a single case of cholera or any other infectious disease on this occasion.

CHAPTER VI.—Administration.

42. **General.**—Lieutenant-Colonel C. A. Gill, I.M.S., held charge of the office of Director of Public Health and Secretary of the Urban Sanitary Board, Punjab, during the year except from 14th May to 9th October when he officiated as Inspector-General of Civil Hospitals, Punjab, in the leave vacancy of Colonel H. M. Mackenzie, I.M.S., and Khan Bahadur Dr. K. A. Rahman, D.P.H., Assistant Director of Public Health, Punjab (Technical) Vaccination officiated for him. Similarly Khan Bahadur Dr. K.A. Rahman held the post of Assistant Director of Public Health, Punjab (Technical) Vaccination throughout the year except during the time he officiated for Colonel Gill, I.M.S., and Major R. C. Malhotra, O.B.E., I.M.S., officiated for him. Dr. Rahman also acted as lecturer on Hygiene at the King Edward Medical College, Lahore and to the Sanitary Inspectors' Class.

Major R. C. Malhotra, O.B.E., I.M.S., remained Assistant Director of Public Health, Rawalpindi Circle, from 1st January to 11th May 1930 and again from the 14th October to the end of the year. Dr. G. R. Vohra, D. P. H., District Medical Officer of Health acted as Assistant Director of Public Health, Rawalpindi Circle, during the absence of Major Malhotra. Dr. A. H. Butt, D.P.H., held charge of the office of Assistant Director of Public Health, Lahore Circle and Personal Assistant to the Director of Public Health, Punjab, throughout the year. Dr. G. R. Vohra, D.P.H., continued to officiate as Assistant Director of Public Health, Ambala Circle, up to the 21st April 1930 when he was relieved by the permanent incumbent Dr. A. B. Arora, M.B.E., D.P.H., on return from leave *ex-India* and the latter then held this charge till the end of the year. Dr. S. G. Rasul, D.P.H., was relieved by Dr. G. R. Vohra, D.P.H., District Medical Officer of Health, of the charge of the Assistant Director of Public Health, Multan Circle, on the afternoon of the 15th October 1930 when the former proceeded on five months leave. While on leave Dr. Rasul died at Rawalpindi on the 9th February 1931. His untimely death after 17 years devoted service as Municipal Medical Officer of Health and District Medical Officer of Health and latterly as Assistant Director of Public Health is a great loss to the Department.

The appointment of a whole-time Assistant Director of Public Health for the Jullundur Civil Division had again to be postponed on account of financial stringency.

Dr. R. B. Lal, D.P.H. remained as Epidemiologist to Government (Officer-in-charge, Epidemiological Bureau) throughout the year.

The sanctioned strength and distribution of the provincial cadre of District Medical Officers of Health remained the same as last year, *viz* :—

- 28 in Public Health of each district,
- 3 in Epidemiological Bureau,
- 6 Leave and Epidemic Reserve.

The proposal to provincialise the services of Municipal Medical Officers of Health is still under the consideration of Government. In addition to the 11 whole-time Municipal Medical Officers of Health employed by the municipalities in the headquarters and large towns, an offer was made to the municipalities of Gujranwala, Rohtak and Kasur towns for such an appointment but only the last named municipal committee accepted the offer. The services of two District Medical Officers of Health of the leave reserve were lent for the first time to the municipal committees of Murree and Dalhousie for the summer season. A start was made with the scheme for providing municipal towns other than the headquarter towns, with part-time Medical Officers of Health. An offer of a subsidy of 50 per cent. towards the pay of part-time Medical Officers of Health for 5 years was made to 9 such towns with effect from the financial year 1931-32.

Owing to financial stringency the special temporary emergency staff engaged to assist the exiguous district health subordinate staff in combating the spread of epidemic diseases and other public health work and which consisted of 20 Sub-Assistant Health Officers, 20 Sanitary Inspectors, 8 dispensers and 4 peons had to be reduced and finally discharged from 1st November 1930. The temporary staff of 6 additional Sanitary Inspectors (subsequently increased to 10) employed in connection with famine test works in the Gurgaon and Hissar districts from January to March was discharged at the end of August owing to the closure of the works.

43. Public Health Equipment Dépôt.—The Public Health Equipment Dépôt at Jullundur which is maintained for supplying at short notice to local bodies, reliable drugs, disinfectants, etc., required for use in combating epidemics, continued to function with success and efficiency. The value of the stores in hand on 1st January 1930 was Rs. 14,597-14-3 and the additional articles obtained during the year cost Rs. 12,485-14-0. Thus stores to the aggregate value of Rs. 27,083-12-3 were available for issue.

The cost price of the articles sold during the year amounted to Rs. 19,347-8-6 and their sale price including Dépôt percentage was Rs. 24,622-10-9. There was thus a gross income of Rs. 5,275-2-3 during the year whilst the annual maintenance charges amounted to Rs. 5,900-9-9 thereby causing a net loss of Rs. 625-7-6 to the dépôt during 1930 as against a profit of Rs. 1,684-9-2 in the preceding year. The decrease in purchases, sales and profit reflects the relatively small demand for disinfectants, rat poison and bhoosa battis owing to the absence of plague and cholera in epidemic form in the province. The increase of Rs. 137 in the maintenance charges of the dépôt is due mainly to the post of the Superintendent having been held by a whole-time officer for the complete year. The issues from the dépôt included 46,260 doses of anti-plague vaccine which were supplied free of cost as against 102,502 doses in the year 1929. In order to minimise the wastage of anti-cholera vaccine it was arranged to stock it at the dépôt and send out in small quantities to meet the requirements of District Officers. 5,000 c. c. of anti-cholera vaccine were thus issued. About 494 gallons of chlorine solution were supplied free of cost to the neighbouring districts for disinfection of water supplies especially on the occasion of large fairs and other gatherings during cholera season. One hundred and forty-one pounds of quinine tablets were also sent out for free distribution in the localities where malaria was prevalent.

44. Educational Bureau and Health Propaganda.—Health propaganda now forms part of the routine duties of District Medical Officers of Health. These officers with the help of their staff delivered 4,334 lectures with or without magic lanterns on health topics to the general public and to school children, whilst the usual courses of lectures in Hygiene in normal schools in the province were continued during the year.

On account of continued financial stringency the scheme for providing a projector at each civil division did not mature, but the success obtained at Ferozepore, where one has been purchased in propagating the principles of hygiene and sanitation amongst the rural population is a practical proof of the effectiveness of this scheme.

Intensive public health propaganda has been carried out in Jhelum District under the guidance of Mr. Brayne, the Deputy Commissioner and the film on malaria prepared by the Punjab Film Company with the help of Dr. Chaudhri is likely to prove to be very instructive and educative. R. S. Dr. Harnath Singh who returned from study leave *ex-India* was appointed Publicity Officer, Public Health Department, in the beginning of November. With little funds at his disposal, he could only pursue a few inexpensive branches of publicity. He was, however, able to prepare a short film entitled "Hygiene in Nature", a synopsis of the film and set

of magic lantern slides on hookworm and two popular lectures illustrated by magic lantern slides on Rural Sanitation and Tuberculosis.

The Photographer attached to the Education Bureau prepared during the year partly for departmental use and partly for Red Cross Society 526 magic lantern slides, 236 new photographs, 462 enlargements and 264 prints.

The department is indebted to the Educational Staff and the Rural Community Council of the various districts as well as to Red Cross Societies for their willing co-operation in health propaganda work.

45. Public Health Chemical Laboratory.—The work carried out in this Laboratory during the year comprised the chemical analysis of the following 443 samples of articles as compared with 346 in the preceding year :—

Serial No.	Nature of sample.	Total number of samples examined.	Result.
1	Drinking water ..	103	57 samples (55 per cent.) were declared to be unfit for domestic use.
2	Ghee ..	54	17 samples (33 per cent.) were found to be adulterated, the adulterant used in most cases being vegetable ghee.
3	Milk ..	65	18 samples (28 per cent.) were found to be either deficient in fat or accompanied by added water.
4	Sweets ..	3	All samples were found to be prepared from Banaspatine.
5	Quinine ..	18	6 samples (33 per cent.) did not contain the declared amount of the drug.
6	Gur, Sugar, Atta and Tea.	..	There was very little adulteration in the case of these articles.
7	Miscellaneous articles	17	Variable.

In addition to the routine examination of the samples mentioned above 142 samples of different cooking oils were examined this year for the purpose of working out their standards of purity which have since been notified under the Punjab Pure Food Act, 1929.

The methods of analysis for various articles of food, standards for which have already been laid down were prescribed and notified as required under the Punjab Pure Food Act, 1929.

Experiments were also carried out in this laboratory to determine the stability of chlorine solution of different strengths and all concerned were informed as to its preparation, storage and use. Chlorine solution

was prepared and sent out to District Medical Officers of Health on demand for use on the occasion of large fairs and other gatherings.

During the year under report a sum of Rs. 80 was realized from local bodies and credited to the Government on account of chemical examination of drinking water and foodstuffs.

46. Epidemiological Bureau.—The Epidemiological Bureau continued to function satisfactorily under Dr. R. B. Lal, Epidemiologist to Government, Punjab, who held its charge throughout the year. The work performed in the Bureau comprised laboratory and field work, mainly in connection with malaria, experimental work and routine laboratory work. The field investigation comprised the malaria survey of Beit Ilaqa in Ludhiana District by Dr. Shah, a report on which will be published in due course. Intensive investigation which commenced in October 1927 at the Chakanwali Reclamation Farm was continued throughout the year. A preliminary survey of the water-logged area in the vicinity of the Dipalpur Canal was carried out with a view to determine the magnitude of the problem. The detailed survey will be conducted in 1931.

The malaria forecast issued on 31st August predicted that the province would remain free from a severe or widespread epidemic of malaria during the ensuing autumn but there would be foci of mild epidemics in some of the districts situated in Ambala and Lahore Divisions. It is satisfactory to note that subsequent events justified this prediction. A noteworthy point in connection with the forecast was the fact that rainfall during July was in excess of the normal practically all over the Punjab and it was feared that the province would again be visited by an epidemic of malaria, but deficiency of rainfall during August (except in a few places), however, averted this danger.

An analysis of the data obtained as a result of the biennial spleen census showed that the number of school children examined in June was 86,039 and in November 88,468 of whom 11,385 and 13,757, respectively, showed enlargement of spleen—the provincial spleen rate being 13·23 per cent in June and 15·55 in November 1930—this small rise of the spleen rate between June and November is attributable to mild epidemic foci of malaria. It will be seen from a study of chart VI that the spleen rate in November shows a slight rise in the districts that were affected by mild epidemics of malaria.

Experimental work included tests for determining the efficiency of certain mixtures for destroying flies and mosquitoes and also investigation to find out the photophobic habits of house flies. The study of the rôle played by the house fly as a "carrier" of the cholera vibrio was continued throughout the year. The details of the experiments are embodied in the April 1931 issue of the Indian Journal of Medical Research. The Bureau undertook the bacteriological examination of water supplies of towns and rural areas and 152 examinations were done during the year.

47. Punjab Vaccine Institute.—Khan Bahadur Dr. K. A. Rahman, Assistant Director of Public Health, Punjab (Technical) Vaccination held charge of the Punjab Vaccine Institute during the year except from 14th May to 9th October when Major R. C. Malhotra, O.B.E., I.M.S., officiated for him, whilst Captain H. C. Phillips, I.M.S., continued to hold the post of Superintendent throughout the year.

The work performed in the Institute comprised mainly the preparation of vaccine lymph, the total number of tubes issued during the year 1930-31 being 70,435 as compared with 67,362 in the previous year.

The following statement gives the details in respect of distribution during the years 1929-30 and 1930-31 :—

			1930-31.	1929-30.
			Tubes.	Tubes.
Punjab	..	..	..	42,832
North-West Frontier Province	..	..	..	4,948
Special Staff, Punjab	..	..	..	2,550
States in the Punjab	..	..	..	4,095
North-Western Railway	..	..	..	536
Military Department in India	..	..	..	4,651
Foreign countries and Indian States	..	..	..	11,423
Total	..		70,435	67,362

Vaccine lymph was prepared as usual according to Forster Java Method, and the potency of the lymph supplied was well maintained. The experiment of supplying vaccine lymph in collapsible metal tubes instead of glass tubes was extended during the year under report to eight other districts in the province. While definite recommendations as to the universal adoption or otherwise of the metal tubes will be made on completion of the experiment, the reports received so far in respect of the utility of these tubes are favourable.

One-hundred and seventy buffalo calves, 16 bovine calves and 21 rabbits were used as vaccinifers during the year under report. The average yield of pulp per animal successfully vaccinated during the year as will be observed from the subjoined table, was greater than that in the preceding three years :—

		Buffalo calf.	Cow calf.	Rabbit.
1927-28	..	85·4 gms.	19·3 gms.	·608 gms.
1928-29	..	84·0 „	19·70 „	·805 „
1929-30	..	89·78 „	22·69 „	·876 „
1930-31	..	113·68 „	28·70 „	1·312 „

The net profit to Government from the sale-proceeds of vaccine lymph was Rs. 29,137-12-0 as against Rs. 26,810-9-3 in the preceding year.

Experiments to determine the bactericidal action of chloroform vapour on vaccine lymph and the cleaning and disinfecting properties of certain soaps on the skin of the calf were also carried out during the year.

Three Sanitary Inspectors, 44 vaccinators and 35 private individuals were trained at the Punjab Vaccine Institute in the methods of preparation of vaccine lymph, technique of vaccination and elementary hygiene.

The medical students of the King Edward Medical College, Lahore and the pupils of the Sanitary Inspectors as well as the Lady Health Visitors Classes were as usual instructed in the technique and method of vaccination.

48. Maternity and Child Welfare.—"In the welfare of the child of to-day is bound up the well-being of the State in the years that lie before us", said Lord Irwin in his speech at the opening of the Red Cross Building, New Delhi; and steady progress has been maintained in the maternity and child welfare work during the year under review.

Three new Health Centres were opened during the year at Gujranwala, Muzaffargarh and Ferozepore Cantonment, and two at Ballabgarh and Palwal (Gurgaon) were closed, the resulting total being 35. Of these 13 are situated in rural and 22 in urban areas and are maintained as follows :—

- 6 by District Boards,
- 4 by Municipal Committees,
- 8 by Red Cross Society.
- 14 by private committees,
- 1 by the Coleyana Estate,
- 1 by the Mamdot Estate,
- 1 by the Punjab Health School.

All the 35 health centres trained 607 dais who conducted 8,051 confinement cases in the year under report. 7,748 of these had been seen ante-natally by Health Visitors while medical aid was called in for 173. There were 31 maternal deaths among them giving an average of 3·84 per mille which is much less than the figure under the ordinary conditions.

In spite of the shortage of the tutorial staff of the Punjab Health School, the Inspectress of Health Visitors and Centres inspected all the centres on one or more occasions making 40 inspections in all as compared with 45 in the previous year. Her inspection notes show that the work in all recognised centres had been conducted on sound lines. These visits by the Inspectress were of a great help to the Health Visitors and to the local committees and provided opportunities for conducting useful educative propaganda.

The Punjab Health School where Health Visitors are trained continued to function with success. Of the nine candidates under training seven obtained the Health Visitors diploma and all of them were immediately provided with posts.

The new training term commenced in October of the year with nine candidates of whom 8 were stipendiaries and one private. These included the two Red Cross Stipendiaries who had completed their midwifery training at the Victoria Zenana Hospital, Delhi. The present hired building of the school and the hostel attached to it provides accommodation only for the existing number of students. The proposal for building a new health school could not be proceeded with owing to the financial stringency. The centre at Qila Gujar Singh, Lahore, which is completely equipped and provides excellent training for a student Health Visitor continued to do good work.

The Punjab Health School, which was taken over by Government from the Lady Chelmsford League in the first instance for a period of 3 years has now been retained for another 4 years. Miss Simon, Principal

and Inspectress of Health Visitors and Health Centres and Miss Raynor Superintendent who rendered long and devoted services to the Punjab Health School and the cause of maternity relief and child-welfare in the province since 1921 retired on the expiry of their contract with effect from the 16th April 1930. The ability, tact, sympathy, energy and devotion to duty of the two ladies earned the confidence and esteem of all. The great progress made by the maternity and child-welfare movement in the Punjab during the past few years is mainly due to their excellent work. In recognition of her services Miss Simon was awarded the Kaisir-i-Hind Medal on 3rd June 1930.

INSPECTIONS AND MISCELLANEOUS DUTIES.

49. The multifarious duties of the Director of Public Health as a member of the Legislative Council, Secretary of the Urban Sanitary Board and member of various other boards and committees did not permit him to carry out long sanitary inspections. During winter Col. C. A. Gill, I. M. S., visited Ambala, Ludhiana, Ferozepore, Hoshiarpur, Jullundur, Gurgaon, Amritsar and Kangra Districts and discussed public health matters with the authorities concerned ; whilst during the monsoon Khan Bahadur Dr. K. A. Rahman visited a number of cholera-infected towns and villages in Hoshiarpur, Jullundur, Hissar and Ferozepore Districts and also inspected the Sanitary arrangements of the Test Works that were going on in Gurgaon and Hissar Districts. He also visited Multan, Muzaffargarh, Rawalpindi, Murree and Kasauli and inspected the sanitary arrangements at Phalgu fair.

Col. Gill attended the Indian Research Workers Conference held at Calcutta in December.

The Assistant Directors of Public Health conducted long tours thus supervising the work of the District Medical Officers of Health in connection with anti-plague and cholera measures, vaccination inspections and the registration of births and deaths and in addition carried out inspections of 31 larger towns and 24 villages in their respective circles. The sanitary arrangements of 22 fairs were inspected by them in addition to the inspection of the sanitary condition of 29 schools and 9 factories in the Punjab.

The District Medical Officers of Health inspected the sanitation of 81 large towns and 4,876 villages as against 173 large towns and 5,270 villages inspected last year.

50. **Conclusion.**—In the foregoing pages an attempt has been made to interpret the significance of the statistical data available with regard to the health of the province and to outline the main activities of the department during the year under review. The year was, it has been shown, a comparatively healthy one and the province remained free from widespread epidemics of plague, smallpox and malaria. The incidence of cholera did not assume widespread epidemic proportions. Except in a few localised areas, its manifestations were promptly nipped in the bud. Even in the few areas where it did persist for some time, it was successfully controlled and its spread limited.

In Gurgaon and Hissar Districts considerable labour was employed for a prolonged period at the various famine test works put in operation there. Special additional staff was provided for the purpose and the District Medical Officers of Health of the respective districts, Dr. Sahgal and Dr. Chopra were in charge of the sanitary organisations which presented peculiar difficulties. All these difficulties were, however, successfully met and the arrangements made were both efficient and adequate. There was no outbreak of any epidemic disease and not a single case of cholera occurred. This bears testimony to the effectiveness of the measures adopted by the Department and His Excellency the Governor when visiting the test works in the Gurgaon District was pleased to remark that this constituted "a record without precedent on famine works of this magnitude in progress over many months."

The demands on the time and energy of the officers of the Department were on the whole, satisfactorily met.

All the Assistant Directors showed keenness and ability in the discharge of their responsibilities. Dr. Butt performed the onerous duties of the Personal Assistant in an efficient manner. Dr. A. B. Arora's valuable services in connection with the supervision of the sanitary administration of the Famine Test Works as well as in the prompt suppression of cholera epidemics deserve conspicuous mention.

Amongst Medical Officers of Health special mention may be made of Dr. Sahgal, District Medical Officer of Health, Gurgaon, for the ability and zeal displayed by him in connection with the sanitary arrangements of the famine test works in the district, of Dr. W. C. Mathur, District Medical Officer of Health, Rohtak and Dr. Kaushash, District Medical Officer of Health, Ferozepore, for the creditable efforts made by them to improve rural sanitation in their respective districts and of Dr. Kapur Singh, District Medical Officer of Health, Hoshiarpur, Dr. C. D. Tiwari, Municipal Medical Officer of Health, Jullundur as well as of Dr. M. Farid, District Medical Officer of Health, Mianwali, for the ability and energy with which they controlled the epidemics of cholera in their respective jurisdictions. The services of Dr. Abdul Hamid also deserve particular mention for all-round good public health work in the Sialkot District.

K. A. RAHMAN,

Offg. Director of Public Health, Punjab.

APPENDIX I.

ANNUAL REPORT OF THE SUPERINTENDING ENGINEER, PUBLIC HEALTH CIRCLE, PUNJAB, FOR THE YEAR 1930.

I.—ADMINISTRATION.

The post of Superintending Engineer, Public Health Circle, Punjab, was held by Rai Bahadur Amar Nath, Nanda, B.A., M.I.E. (Ind.), throughout the year.

The number of divisions comprised in this Circle remained the same as before, *viz.*, 3 Divisions.

1. *Lahore Public Health Division*.—Mr. J. A. R. Bromage, A.M.I., C.E., held charge of this Division up to 4th March 1930, the date on which he proceeded on long leave to Europe for 10½ months, and Mr. D. A. Howell, A.M.I., C.E., remained in charge of the Division for the rest of the year. He also held the charge of Multan Public Health Division in addition to this one up to 10th March 1930.

2. *Ambala Public Health Division*.—Mr. B. F. Main, A.M.I., C.E., retained the charge of this Division throughout the year.

3. *Multan Public Health Division*.—This Division remained in the charge of Mr. D. A. Howell up to 10th March 1930 and in charge of Mr. T. B. Madnani, Temporary Engineer, to the end of the year.

Mr. Devi Chandra Khanna held the charge of the office of Personal Assistant to Superintending Engineer throughout the year.

Mr. J. S. Sehi held charge of the Lahore Public Health Sub-Division for the whole year.

Lala Guranditta Mal retained charge of the Sialkot Public Health Sub-Division for the full year.

Sardar Hukam Singh, B.Sc. was appointed in charge of the Estate Public Health Sub-Division on 6th June 1930, the date of the opening of the Sub-Division and held it through the rest of the year.

Lala Nand Lal, Sub-Engineer, held the charge of the Ludhiana Public Health Sub-Division for the whole year.

Lal Dina Nath Duggal was placed in charge of the Rohtak Public Health Sub-Division from the date (15th May 1930) this Sub-Division was opened and held it throughout the year.

Lala Devi Chand held the charge of the Multan Public Health Sub-Division throughout year.

Miscellaneous work.—Two-hundred and thirty visits to Municipal towns, Notified Areas and Small Towns were paid by the Superintending Engineer and his staff in connection with Public Health schemes during the year.

Boring Works.—Forty borings were done during the year, some of these were done departmentally with Government boring plant and some by contract. The work in both the cases was done expeditiously and economically.

The average number of Public Health works under execution during 1930 from month to month was 49.

Seven new schemes were commenced during the year and 11 completed.

II.—PUBLIC HEALTH WORKS UNDER CONSTRUCTION.

Government Works are dealt with first :—

1. *Water borne Sewerage in Civil Secretariat and adjoining offices, Lahore, Rs. 23,023*.—This work has been sanctioned technically but funds are awaited.

2. *Water Supply and Drainage High Court and adjoining office, Lahore, Rs. 29,716*.—The above work has been completed and accounts closed.

3. *Providing water supply and drainage for the proposed alteration in Borstal Institution, Lahore, Rs. 26,398*.—The work has been completed.

4. *Installing a disinfecter in Central Jail, Lahore, Rs. 11,645.*—The building to house the disinfecter has been completed, the disinfecter with the necessary boiler has been received and is being installed.

5. *Proposed Extramural Drainage and Sullage Disposal in Borstal Institution Central Jail and Female Jail, Lahore, Rs. 83,565.*—About 2/3rds of the total work has been completed. The pumping plants are being placed on order and it is anticipated that this scheme will start functioning by June 1931.

6. *Water-supply and Drainage Sub-Jail, Kasur, Rs. 37,569.*—Work completed and accounts closed.

7. *Water-supply and Drainage at the New Sub-Jail, Gujrat, Rs. 43,597.*—The work has been completed during the year.

8. *Emergent Water-supply, Attock Fort Jail, Rs. 14,557.*—The work has been completed during the year.

9. *Water-supply and Drainage for proposed hospital, Police Lines, Lahore, Rs. 27,467.*—The work has been completed and the accounts closed.

10. *Surface Drainage Police Lines, Amritsar, Rs. 27,004.*—The internal surface drainage has been completed but the outfall and disposal works have not been started owing to the land acquisition question which is pending settlement with the Deputy Commissioner, Amritsar.

11. *Sanitary Installation in the Dental Hospital and School Lahore, Rs. 14,455.*—Except for a minor item the work has been completed and it is functioning properly.

12. *Additions and Alterations to Water-supply, Mayo Hospital and King Edward Medical College, Lahore, Rs. 71,328.*—The work has been completed.

13. *Sewerage of Main College and Anatomical Block, New Medical School, Amritsar, Rs. 10,187.*—Work practically completed.

14. *Laboratory Equipment including Water-supply, Internal Drainage, Sinks and Basins for the Dental Hospital and School, Lahore, Rs. 10,588.*—But for a few minor items the work is complete and functioning properly.

15. *Sewerage Scheme for Female Section of Mental Hospital, Lahore, Rs. 42,271.*—The work has been completed.

16. *Sewerage Scheme, Maclagan Engineering College, Moghalpura, Rs. 86,516.*—The land acquisition question is still undecided and the work is in the same state of progress as reported last year.

17. *Water-supply Chauburji Gardens Estate, Lahore, Rs. 1,10,343.*—The work as far as possible has been completed and functioning properly.

18. *Sewerage Chauburji Gardens Estate, Lahore, Rs. 2,70,731.*—The work has been completed except for the menials quarters which are in hand. The sewerage scheme is functioning perfectly.

19. *Independent Water-supply, Gazetted Officers' Residence Estate, Lahore, Rs. 30,793.*—The work has been completed.

20. *Equipment necessary for maintaining sewage scheme Chauburji Gardens Estate, Lahore, Rs. 17,241.*—Most of the necessary equipment has been purchased and the balance is on order.

21. *Water-supply to the High School, Jhelum, Rs. 10,253.*—The work has been completed during the year.

22. *Sewerage and Sanitary fittings in the Maternity Hospital, Lahore, Rs. 68,527.* About 90 per cent. of the work has been completed.

23. *Providing Sanitary Services and Air Conditioning in Main Block at Maternity Hospital, Lahore, Rs 1,06,414.*—The work is being taken in hand. The contract for the steam boiler installation and air conditioning plant has been let.

24. *Water-supply Maternity Hospital, Lahore, Rs. 25,102.*—About 90 per cent. of the work has been completed.

25. *Providing water-supply to Lawns and Shrubberies at Old Fort, Lahore, Rs. 13,320.*—The work has been completed and the accounts closed.

26. *Water-supply to Fountains and Grass Plots, Old Fort, Lahore, Rs. 13,780.*—The work has been completed and the accounts closed.

27. *Pumping plant, valves, pipes, tanks, etc., in Hydraulic Research Laboratory, Lahore, Rs. 36,608.*—The work has been practically completed.

28. *Fortlands Internal Drainage, Rs. 22,863.*—All the drains have been completed in the blocks where houses have so far been built.

29. *New Central Jail Water-supply and Drainage, Rs. 1,41,762.*—The Water-supply and Drainage works have been completed, the maintenance of the works is in the charge of this Department, 1½ lakh gallons of water is supplied daily for domestic and irrigation purposes.

30. *New Central Jail Bathing Platform, Rs. 16,305.*—Bathing platforms with showers have been provided in each block of cells, barracks and hospital, etc.

31. *Disinfecting Plant—New Central Jail, Multan, Rs. 10,399.*—The running of the above plant is with this Department, it is worked for disinfecting the clothes and blankets of the prisoners.

32. *New Hospital, Multan Drainage and Sanitary Fittings, Rs. 50,060.*—Works in the above hospital consisting of surface drains, water-supply (domestic and irrigation), disinfecting plant, hot water-supply in the main block have been completed. The hospital was opened on 1st December 1930 and all these works are functioning efficiently.

Domestic water-supply is stored in the elevated service reservoir from municipal main and water is kept open in the hospital for 24 hours. Water is pumped from 10' diameter well for irrigation of grass lawns in the hospital. Domestic boiler is worked for the supply of hot water in the main block of the hospital.

Disinfecting plant is worked for disinfecting the clothes and when required by the hospital authorities sullage water from drains is drained in the low fields on the north of the hospital which is used for irrigating the fields.

Hospital sweeping is disposed of in an incinerator built outside the hospital premises.

33. *Providing water-supply and latrines, Government School, Naushehra, Shahpur District, Rs. 11,928.*—The work consists of (a) one set of 4-seated latrines and (b) 8' inside diameter well.

(a) *One set of 4-seated latrines.*—These have been completed.

(b) *8' diameter well.*—Excavation up to spring level, viz. 104 feet below ground level has been done. Wet sinking below 104 feet is in hand. Stone masonry of steining the well 20 feet high above the curb has been done and steining in B. B. in cement is well in hand.

34. *Warcha Water-supply, Rs. 73,799.*—The work consists of a 2½ miles of 3 inches gravity pipe and a mile of 2 inches gravity pipe, one 20 feet high dam above the gorge and a reservoir of 5,000 gallons capacity for Public Works Department camp, 13 No. suspension crossings for the 3 inches pipes to cross the gorge. The work is mostly completed, the weak points caused by the heavy rains of 1929 have been watched and set right on the spot.

WORKS IN CONNECTION WITH LOCAL BODIES ARE DESCRIBED BELOW.

1. *Water-supply, Pathankot, Rs. 1,71,145.*—The work has been completed and accounts closed.

2. *Jowalamukhi Water-supply, Rs. 40,000.*—Except for a few minor items the work has been completed.

3. *Sialkot Drainage Scheme, Rs. 4,49,881.*—The extramural portion of this scheme was completed in the year 1928, with the exception of 2 crossings under the Railway and a portion of the southern intercepting drain near Imam Shaib. The crossings were built by the Railway Department in 1929 but the portion of southern intercepting drain is still incomplete as the question of alignment of this drain is not yet finally decided.

Intramural portion of the scheme has, however, started this year and fair progress made over about $\frac{1}{2}$ the total area. The remaining half has only recently been given out on contract and work has been started on it.

4. *Sialkot Water-works, Improvements and Addition, Rs. 1,50,258.*—This work has been completed.

5. *Thal Ilaqa water-supply, Rs. 1,48,043.*—The main work under this estimate was done in the previous year, during the year under report certain damages sustained by the work due to heavy rains have been set right. Certain additions to the scheme are under consideration.

6. *Rawalpindi Drainage of D. A.-V. College, Mohalla Area, Rs. 63,225.*—The work was completed during the year and finally paid for.

7. *Tamman water-supply, Rs. 78,894.*—Progress on this work during the year has been very little due to the fact that the land required for the Headworks could not be acquired. The steel reservoir was fitted up and all stores for works obtained.

8. *Pind Dadan Khan Temporary water-supply, Rs. 28,033.*—Work on this was started in the last quarter of the year and almost all pipe lines have been laid and the new well for supply of water is in hand.

9. *Wazirabad Drainage Scheme, Rs. 31,497.*—The work is sanctioned but has not so far been started as there is some trouble about acquisition of land.

10. *Multan water-supply, Rs. 12,57,637.*—The scheme has been completed and is being maintained by the Multan Public Health Division. Water is supplied to the town from the public standposts. The daily supply of water varies from 125,000 gallons to 300,000 gallons during winter and summer. One hundred private house connections have been sanctioned by the Urban Sanitary Board and funds are awaited from the Municipal Committee.

11. *Multan Drainage, 1st Instalment, Rs 1,22,976.*—Pumping plant consisting of Mirless Horizontal chokeless pumps and General Electric Company's enclosed ventilated squirrel cage motors have been ordered and is expected shortly. The land for the sullage main carrier is being acquired.

12. *Multan Drainage, 2nd Instalment, Rs. 1,34,747.*—Construction of main northern sewer has been completed and 900 ft. length of outfall sewer has been completed. The progress of work was much delayed due to difficulties for acquisition of land. The land has now been acquired and tenders for the construction of the remaining part of the outfall drain, disposal works, sullage carrier and storm channels have been sent to the Superintending Engineer for approval.

13. *Improvements to Montgomery Market Drainage, Rs. 35,351.*—The above work has been completed and handed over to the Municipal Committee, Montgomery.

14. *Sinking 3 more Percolation Wells at Dera Ghazi Khan, Rs. 27,406.*—The work has been completed in all respects and the wells have been put into operation.

15. *Providing duplicate set of Pumping Plant at Dera Ghazi Khan, Rs. 29,790.*—The plant is on order with Alfred Herbert and Company.

16. *Roofing Old Well, Khushab Water Supply, Rs. 1,651.*—The existing two wells of 17 ft diameter of Khushab Water Supply have been roofed by putting 3" R. C. concrete slab over R. S. beams.

17. *Chhidru Trial Boring, Rs. 4,088.*—Two hundred and seventeen feet of 15" boring has been completed by this time. The casing pipes have not been withdrawn as yet. The estimate for water supply scheme has been sent up for approval and if funds are received in the near future, the bore hole will be utilized for sinking the plain pipe and strainer.

18. *Musakhel Water-supply, Rs. 37,394.*—The work has been completed and water service commenced to the public. The scheme comprises of a pump chamber (25' x 14') and a 10" diameter tube-well with 24' x 10' Tej strainer. The service reservoir is of 10,000 gallons capacity with 16 taps round it.

19. *Isakhel Water-supply, Rs. 1,30,844.*—The work is nearing completion.

20. *Ghundi Water-supply, Rs. 3937.*—The work is almost complete. It consists of improvement to the existing well and augmenting its supply by sinking a 3" tube and strainer in its bed.

21. *Nagni Water-supply, Rs. 4,523.*—The work is nearing completion and comprises of the same work as item 15.

22. *Kalri Water-supply, Rs. 9,721.*—The scheme comprises of sinking of a 10" diameter percolation well and the provision of a 3" plain pipe and Tej strainer in the bottom of the well. No suitable strata permitting sinking of a bore pipe

or promising a good yield has so far been met with. Further investigations in the matter are in progress.

23. *Abohar Drainage, Rs. 2,45,209.*—The metalling of streets, the only remaining work has been completed and the accounts will be closed during the next financial year.

24. *Abohar Water-supply, Rs. 3,25,357.*—All metered connections have been made and the accounts will be closed in January 1931.

25. *Moga Drainage Scheme, Rs. 1,76,204.*—The sullage pumping plant has been handed over to the local body for maintenance.

26. *Ferozepur Drainage Scheme, Rs. 82,994.*—The construction of the storm water channel has not yet been commenced due to the Municipal Committee not having approved of the conditions laid down by the Irrigation Department regarding the disposal of the storm water.

27. *Jagadhri Drainage Scheme, Rs. 1,34,966.*—The work is now complete except the construction of drains and pavements in one bazar, which will be taken in hand on receipt of sanction from the Urban Sanitary Board.

28. *Ludhiana Drainage Scheme, Rs. 3,45,009.*—The land for the irrigation farm has not yet been acquired by the Municipal Committee. The outfall and storm water channel are nearing completion and the scheme is expected to function early next year, the neighbouring farmers agreeing to take sullage temporarily.

29. *Karnal Drainage Scheme, Rs. 2,92,924.*—The flushing installations together with the pumping station are nearing completion. The outfall and disposal works have been held up as the land for the same has not yet been acquired by the Local Body. It is anticipated that the land will be acquired early next year when the works will be pushed on with the object of completing the scheme before the rains.

30. *Improvement to old well and converting it into tube-well for flushing arrangement at Hoshiarpur, Rs. 14,372.*—Boring has been completed and the strainer is about to be lowered.

31. *Jagraon Drainage Scheme, Rs. 80,251.*—All extramural and intramural drains, pavements, and major part of the roads have been completed. The construction of the out-fall will be taken in hand when the land has been acquired.

32. *Rohtak Waterworks, Rs. 5,56,479.*—All work with the exception of the pump house has been completed. The machinery has been ordered and the erection will start next year. It is anticipated that the scheme will be put into action by the end of the first quarter of the next year.

GENERAL.

This Circle, through its Divisional and Sub-Divisional staff, has charge of water supply and sanitary services of almost all the Government estates, residences and institutions in the Province, which work is being carried out in a very efficient manner.

AMAR NATH, NANDA,
Superintending Engineer, Public Health Circle, Punjab.

Detail of Sanitary Projects prepared during the year under report by the Executive Engineers, Public Health Divisions, is given below :—

PRELIMINARY PROJECTS.

(a) Major Works—(Provincial).

Name of Project.	Amount.
	Rs.
(1) Montgomery Central Jail and Civil Station Water Supply	1,19,537
(2) Tuberculosis Hospital, Ludhiana	16,810
Total ..	1,36,347

<i>Name of Project.</i>	<i>Amount.</i>
	Rs.
<i>(a) Major Works—(Contribution) Preliminary.</i>	
(1) Proposed protection works along Udhana Nullah at Bhakkar, District Mianwali ..	1,42,738
(2) Shishmahal Drainage Extension ..	1,00,763
(3) Pakpattan Fair Area Water Supply ..	80,000
(4) Dajal Town and Rural Water Supply—Estimate No. I	2,02,827
Estimate No. II	2,13,021
(5) Sargodha Drainage (New Sulage disposal works and improvements)	52,944
(6) Khushab Drainage Scheme	1,42,227
(7) Vehoa Water Supply (Dera Ghazi Khan District) ..	25,000
(8) Proposed Water Supply for Bari village and other villages in Hoshiarpur District	63,872
 Total ..	 10,23,392

DETAILED PROJECTS.

<i>(a) Major Works—(Provincial).</i>	
(1) New Maternity Hospital, Lahore, complete Steam Installation and Sanitary and Air Conditioning services in Block C of the Hospital ..	1,06,414
(2) Improvement to Water Supply of Dina Encamping Ground	11,821
(3) Rivaz Gardens, Lahore, improvements to Water-supply	14,273
(4) Attock Fort Jail Water-supply Scheme ..	14,557
(5) Providing additional tube-well at the Borstal Institution, Lahore	15,419
(6) Lawrence School Water-supply Installation of duplicate pumping plant and additions and alterations to the Engine House and existing driver's and oilman's quarters to suit the duplicate set of pumping plant at Lawrence School, Ghora Gali	12,966
(7) Tube-well Water-supply for Intermediate College, Pasrur	19,195
(8) Rawalpindi District Jail Drainage Improvements ..	15,900
(9) Sanitary Installation for New Civil Hospital, Gujranwala	42,976
(10) Maintenance of Dera Ghazi Khan Water-supply ..	13,457
(11) Bathing Platforms, New Central Jail, Multan ..	35,729
(12) Proposed Lines for Police Constables and Warders' New Central Jail, Multan	17,933
(13) Revised estimate of Water-supply and Latrines in Government High School, Naushehra ..	11,928
(14) Fort Munro Water-supply	1,20,946
(15) Installation of water pipe connection in the Government Industrial School, Ludhiana	13,540

<i>Name of Project.</i>		<i>Amount.</i>
		Rs.
(16) Water-supply, Government Intermediate College, Ludhiana		31,505
(17) Water-supply, King Edward Medical Hospital, Karnal		21,085
	Total	.. 5,19,654
	Minor Works	.. 3,45,331
	GRAND TOTAL	.. 8,64,985

DETAILED PROJECTS.

(b) Major Works (Contribution).

(1) Sinking a percolation well in the village of Usman Khattar, District Rawalpindi		19,892
(2) Choa and Katas Water-supply Improvements and additions		31,232
(3) (a) Construction of steel reservoir at Dunga Gali for the Murree Water-supply		5,64,528
(b) Construction of reinforced concrete reservoir at Dunga Gali		4,57,259
(4) Protection of Sialkot from Aik Nullah		55,285
(5) Pind Dadan Khan Temporary Water-supply ..		28,033
(6) Revised estimate of 3 percolation wells at Dera Ghazi Khan Waterworks		30,882
(7) Extension of distribution system, Isakhel Water-supply		20,305
(8) Chhidru Water-supply		43,346
(9) Sargodha Waterworks Extension proposed Storage Tank		72,441
(10) Sakhi Sarwar Water-supply		92,019
(11) Drainage of Parao Land in Rohtak Town ..		12,654
(12) Old Moga Town Drainage Scheme, 1st Instalment ..		33,646
(13) Ferozepur Drainage Extension Part II, Storm Water Channel		92,166
(14) Supplementary estimate to accompany estimate for improvement to Ambala City		11,173
(15) Water-supply, Ambala City		30,250
(16) Gurgaon Drainage Scheme		88,806
(17) Palwal Water-supply Scheme		2,99,544
(18) Bhiwani Waterworks		6,00,500
(19) Special Repairs to Waterworks, Rewari ..		18,921
(20) Maintenance Water-supply Rohtak		16,789
(21) Extension of storm water channel and outfall Ludhiana		41,567
	Total	.. 26,61,238
	Minor works	.. 1,16,297
	TOTAL	.. 27,77,535

Detail of projects prepared in the Circle Office under the supervision of the Superintending Engineer, during the year under report—

<i>Name of Project.</i>	<i>Amount.</i>
	Rs.
(1) Pindi Gheb Drainage (Rough)	.. 1,84,427
(2) Bhera Drainage (Rough)	.. 3,22,800
(3) Kot Adu (Rough)	.. 97,263
(4) Ludhiana Drainage (Detailed)	.. 84,292
(5) Jhelum Drainage (Rough)	.. 98,000
(6) Jhelum Flood Protection (Rough)	.. 5,05,592
(7) Wasawe Wala Drainage (Rough)	.. 84,860
(8) Renala Khurd Drainage (Rough)	.. 1,24,404
(9) Kamoki Mandi Drainage (Rough)	.. 40,583
(10) Nankana Sahib Drainage (Detailed)	.. 58,380
(11) Old Town Moga Drainage (Rough)	.. 31,485
(12) Hafizabad and Gari Awan (Rough)	.. { 58,688 54,669 6,145 }
(13) Sialkot Suburbs ..	.. 95,621
(14) Dunyapur Water-supply (Detailed)	.. 1,86,012
(15) Sultan Khel Water-supply (Detailed), Mianwali District	.. 27,808
(16) Sanwans Water-supply (Rough) Mianwali District	10,780
(17) Burekhel Water-supply (Detailed), Mianwali District	27,468
(18) Bhadrar village, Shahpur District	.. 15,000
(19) Arafwal Water-supply (Detailed)	.. 1,23,608
(20) Panipat Water-supply (Detailed)	.. 3,00,604
(21) Thal Ilaqa Water-supply (Jethal and Dhudi) (Detailed)	.. 68,546
(22) Kundal, Kundwal, Jhelum District (Rough)	.. 85,715
(23) Dharampur Sanitorium (Detailed)	.. 59,920
(24) Pindi and Wahir, Shahpur District (Detailed)	.. 61,506
(25) Okara Water-supply (Rough)	.. 1,58,780
Minor Works	.. 10,454
Total	.. 29,80,410

APPENDIX II.

STATEMENT OF PUNJAB WATER WORKS FOR THE YEAR ENDING 31ST MARCH 1930.

No.	Name of Municipality.	RECEIPTS.										EXPENDITURE.										BALANCE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Water-rate.			Sale of water.			Other receipts.			Establishment.			Pumping.			Intake.			Settling tanks and filters.			Miscellaneous.			Total expenditure.			Credit balance.			Debit balance.			REMARKS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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APPENDIX III.

PROCEEDINGS OF THE URBAN SANITARY BOARD, PUNJAB.

(THE PROCEEDINGS REFER TO THE PERIOD APRIL 1ST, 1930 TO MARCH 31ST, 1931, INSTEAD OF THE CALENDAR YEAR 1930.)

The Hon'ble Malik Firoz Khan Noon, Minister for Local Self-Government (at present Minister for Education) was the President and the Director of Public Health the Seeretary of the Board throughout the period under review.

With the change in the portfolio of the Minister the eomposition of the Board was also changed with the exception of Rai Bahadur Lala Mohan Lal, M.L.C., and Khan Bahadur Sheikh Din Muhammad, M.L.C., who continued to remain its members.

Under the old composition the Board met twice when out of 7 non-official members four attended both the meetings, two attended one and one could not attend any ; whilst under the present composition only one meeting was held which was attended by five members. The attendancee of the members is an evidence of the keen interest displayed by them in matters pertaining to the public health of urban areas.

In April 1930, the sum of Rs. 4,00,000 was placed at the disposal of the Board. In addition the Board had the sum of Rs. 1,60,000 surrendered at the close of the previous year together with a reserve of Rs. 77,000 with the Finanee Department which represented the recoveries of unspent balancee of grants-in-aid made to local bodies. Owing however to finaneial stringency the Board under orders of the Government surrendered Rs. 90,000 as well as the reserves ; and the total amount available for allotment during the year 1930-31. was thus reduced to Rs. 3,10,000 which was allotted in full during the year under review.

The accounts of schemes executed by the local bodies were checked by the Auditor with a view to recovery of the unexpended balance and in this manner a sum of Rs. 68,760-10-4 was reeovered.

The number of schemes assisted during the year was 16 as compared with 21 in the previous year.

The names of the schemes and the amount allotted to each is enumerated below :—

	Rs.
1. Fatehjang Water-supply Seheme (Trial Boring)..	2,368
2. Ambala Combined Water-supply Scheme ..	9,389
3. Construetion of two railway culverts over the storm water channel of the Drainage Scheme at Sialkot ..	2,904
4. Hoshiarpur Drainage Scheme ..	7,186
5. Murree Water-supply Extension Seheme ..	16,000
6. Pind Dadan Khan Temporary Water-supply Scheme ..	28,033
7. Sialkot Intramural Drainage Scheme ..	66,868
8. Murree Water-supply Extension Seheme ..	69,000
9. Lyallpur Factory Area Drainage Scheme ..	19,400
10. Shahpur Sadar Drainage Scheme ..	8,241
11. Choa and Katas Fair Area Water-supply Seheme ..	16,000
12. Grant of a bonus to the contraetor employed in the execution of the Choa and Katas fair area Water Supply Seheme ..	500
13. Dera Ghazi Khan Water-supply Extension Scheme ..	3,476
14. Temporary Water-supply Scheme, Pind Dadan Khan ..	2,000
15. Repairs to Rewari Water Works ..	16,921
16. Murree Water-supply Extension Scheme ..	41,714
Total ..	3,10,000
Surrendered ..	90,000
GRAND TOTAL ..	4,00,000

APPENDIX IV.

LIST OF SANITARY WORKS OF PUBLIC UTILITY CONSTRUCTED
BY PRIVATE BENEFACTION DURING THE YEAR 1929-30.

AMBALA DIVISION.

1. *Hissar district*.—A well at a cost of Rs. 1,000 by B. Shri Krishan Deva, Pleader, at Hissar. A well at a cost of Rs. 1,500 by Lala Nand Kishore, son of Lala Salig Ram, Rais, at Hissar. A well at a cost of Rs. 1,000 by Lala Radha Kishan, son of Lala Ram Chander, at Hissar. A well at a cost of Rs. 2,000 by Alladiya, son of Qazi ; Karim Bakhsh, son of Ilahi Bakhsh ; Gulab, son of Sandal ; and Maulah, son of Khuda Bakhsh, Goojars at Bhiwani.

2. *Rohtak*.—A well and a Dharamshala at a cost of Rs. 1,500 by Kewal Singh, Jat, of Samchana at Hasangarh, tahsil Rohtak. A well at a cost of Rs. 1,000 by Jita, son of Gurdial, Mahajan of Ismaila on Sampla-Ismaila road. A well and a Dharamshala at a cost of Rs. 1,575 by Badri, son of Sheo Ram, Mahajan of Dulehra, tahsil Jhajjar, on Dulehra road.

3. *Gurgoan*.—The following is the statement showing the number of wells cleaned and the number of parapets constructed :—

Serial No.	District.	Number of wells cleaned.	Number of parapets constructed.	Amount spent.
	<i>In Municipal Towns.</i>			Rs. A. P.
1	Ballabgarh	1	1	49 4 0
2	Faridabad	1	Nil	3 8 0
3	Rewari	127	Nil	218 0 0
4	Palwal	Nil	Nil	Nil
5	Firozpur-Jhirka	25	1	5 0 0
6	Hodal	26	Nil	Nil
7	Hidayatpur Chhaoni	3	Nil	45 0 0

A well at a cost of Rs. 150 by Tulsi, Khatri of Dhankot at Kherki, Mazara Dhankot. A well at a cost of Rs. 7,000 by Lala Salig Ram at Dabina, tahsil Rewari, two wells at a cost of Rs. 9,000 by Lala Murli Dhar at Dabina, tahsil Rewari, three wells at a cost of Rs. 500 by Lala Nathu at Guraora, tehsil Rewari. Four parapets constructed by village community at a cost of Rs. 25 at Suma Khera, tehsil Rewari. A well at a cost of Rs. 22,000 by Lala Hukam Chand at Nikhri, tehsil Rewari. A well at a cost of Rs. 225 and a platform at a cost of Rs. 50 by Mussamat Ganga Devi at Ban Chari, tehsil Palwal. A well at a cost of Rs. 250 by Ram Jiwan, son of Parem Mahajan at Taoru, tehsil Nuh. A well at a cost of Rs. 275 by Shib Lal, son of Bhiki, Mahajan at Mand Kaula, tehsil Nuh.

4. *Karnal*.—A new drinking water well at a cost of Rs. 400 by Mussamat Ram Devi, wife of Rupu Ror, outside Diyalpura Gate in Karnal town. Boring of an old well at a cost of Rs. 600 by Pandit Munshi Ram of Panipat in Mohalla Khara Kuwan, Taraf Rajputan.

5. *Ambala*.—A well at a cost of Rs. 2,000 by Lala Shadi Ram, son of Lala Joti Ram, Ahluwalia, Rupar and Mussamat Basanti, alias Chhoto, wife of Kirpa Ram, Ahluwalia, Rupar, in Mohalla Khera Kalan. A well at a cost of Rs. 500 by Mussamat Bansi, wife of Lala Maghi Ram, Khatri, of Rupar, in Mohalla Chaklan Kalan.

JULLUNDUR DIVISION.

6. *Hoshiarpur*.—Repair of public wells at a cost of Rs. 240 by village Panchayat Darapur. Repair of public wells and levelling of lanes and drains at a cost of Rs. 501-5-0 by village Panchayat Khanaura. Construction of new public well at a cost of Rs. 400 by village Panchayat Langeri. Repair of a well with Khurli and persian wheels at a cost of Rs. 275 by village Panchayat Manak Dheri. Repair of a well at a cost of Rs. 80-11-0 by village Panchayat Mawa Kaholan. Excavation of public pond at a cost of Rs. 315 by village Panchayat Pasi Umar Khan. Levelling of lanes at a cost of Rs. 126-8-0 by village Panchayat Lambera. Levelling of lanes at a cost of Rs. 150 by village Panchayat Ajnoba. Repair of a Ghati at a cost of Rs. 52-8-0 by village Panchayat Dudial (Dasuya). Levelling of lanes at a cost of Rs. 43 by village Panchayat Dudial (Garhshankar). Levelling of lanes at a cost of Rs. 60 by village Panchayat Dhagam. Levelling of lanes at a cost of Rs. 33 by village Panchayat Johal. Levelling of lanes at a cost of Rs. 124-12-9 by village Panchayat Tarkiana. A serai at a cost of Rs. 800 by Bhagwat Acharya at Majara. A serai at a cost of Rs. 1,000 by Lambardar Indar Singh and members of his family at Halri. A serai with a well at a cost of Rs. 500 by Gobind Ram, Jat at Jainpur. Repairs to a serai at a cost of Rs. 50 by Pandit Daryodhan Das at Joh. A well at cost of Rs. 2,000 by Babu Karm Chand of Sujanpur at Bambowal. A well at a cost Rs. 1,500 by village community under the guidance of Chaudhri Hukam Chand at Nadalon. A well at a cost of Rs. 1,500 by village community at Laksian. A well at a cost of Rs. 700 by Laxman Singh, Khalsa Bradar at Bambeli. A well at a cost of Rs. 1,000 by Ad-Dharmi Community at Bambeli. A well at a cost of Rs. 750 by Ad-Dharmi community at Bilaspur. A well at a cost of Rs. 1,500 by Sardar Kundan Singh of Baddon at Sarhala Kalan. Repair to a well at a cost of Rs. 30 by village community at Bodal. Repair to a well at a cost of Rs. 150 by village community at Jaja. Repair to a well at a cost of Rs. 150 by Chaudhri Sadu-ud-Din Sufaidposh and some other donors at Taggar Kalan. Repair to a well at a cost of Rs. 70 by Bahti community at Haleri. Repair to a well at a cost of Rs. 125 by village community at Mehandpur. Repairs to a well and Musafar Khana at a cost of Rs. 150 by Mussamat Basanti, widow of Indar Singh, at Kharar. Repairs to a well at a cost of Rs. 200 by Lambardar Nur Ahmad at Pandori Araian. Repairs to a well at a cost of Rs. 50 by Chaudhri Nur Muhammad at Passi Bet. Repairs to a well at a cost of Rs. 40 by village community at Safdarpur. Repairs to a well at cost of Rs. 25 by village community at Ghorewaha. Repairs to a well at a cost of Rs. 50 by village community at Nangal Jamal. Repairs to a well at a cost of Rs. 30 by village community at Babak. Repairs to a well at a cost of Rs. 200 by village community at Sarain. Repairs to a well at a cost of Rs. 35 by village community at Bairampur. Repairs to a well at a cost of Rs. 45 by Chaudhri Abdul Karim and village community at Panj Dehra. A tank at a cost of Rs. 300 by village community at Dhillu. A tank at a cost of Rs. 250 by village community at Heran. A tank at a cost of Rs. 250 by village community at Kungrat and Baiderwal. Lanes repaired at a cost of Rs. 140 by village community at Santokhgarh. Laying of lanes with bricks at a cost of Rs. 127 by village community at Laksian. Well sunk in school compound at a cost of Rs. 400 by Manak Dheri and Birampur villages at Manak Dheri.

7. *Jullundur*.—A water pump at a cost of Rs. 150 by Mussamat Mohan Devi, widow of Lala Bindar Ban, Khanna, outside Mai Hiran Gate. A water pump at a cost of Rs. 150 by Lala Dhani Ram, shopkeeper, Bazar Bheron, inside Mai Hiran Gate. A water pump at a cost of Rs. 150 by Lala Sham Das, Khanna, Bazar Bheron, inside Mai Hiran Gate. A water pump at a cost of Rs. 125 by Lala Shiv Sahai, Khatri in Mohalla Lawan. A water pump at a cost of Rs. 100 by Lala Shiv Sahai, Khatri, Purani Sarai in Bazar Boharwala. Repairs of a well at a cost of Rs. 200 by Maharaj Mal, Muni Mal Khatri, Mohindru Mohalla Mahindruan, in Adda Kapurthala. A water pump at a cost of Rs. 150 by Lala Mohan Lal, Rais, Basti Sheikh, in Adda Basties. A water pump at a cost of Rs. 150 by Lala Mohan Lal, Rais, Basti Sheikh in Chauk Hashem Shahid. A water pump at a cost of Rs. 125 by Lala Mohan Lal, Rais, Basti Sheikh in cremation ground Basti Sheikh. A water pump at a cost of Rs. 100 by Lala Mohan Lal, Rais, Basti Sheikh in Mohalla Kot Kucha Bandian Basti Sheikh. A water pump at a cost of Rs. 100 by Lala Mohan Lal, Rais, Basti Sheikh in Mandir, Arya Samaj, Basti Sheikh. A water pump at a cost of Rs. 100 by Lala Mohan Lal, Rais, Basti Sheikh at Marghat, Basti Danishmandi. A water pump at a cost of Rs. 100 by Lala Mohan Lal, Rais, Basti Sheikh in Mohalla Kot Basti Sheikh. A well and a house at cost of Rs. 1,200 by Lala Amritsaria Mal, son of Lala Das Mal, Khatri, Basti Sheikh at Ferozepore road, Basti Sheikh. A house at a cost of Rs. 1,400 by Lala Mohan Lal, Rais inside Marghat, Basti Sheikh.

A water pump at a cost of Rs. 350 by public fund through B. Gujjar Mal, at Wehra Khakroban Abkariwala. A water pump at a cost of Rs. 150 by Lala Bansi Lal, Bahri at Gandhi Mandap. A water pump at a cost of Rs. 100 by Lala Khem Chand, merchant, near Doaba School, Adda Hoshiarpur. A water pump at a cost of Rs. 100 by Mr. Sudarshan, Agent, Tata Iron Works, at Adda, Tanda. Three water pumps at a cost of Rs. 400 by Lala Khem Chand, merchant, at District Board Road, Tanda. A water pump at a cost of Rs. 100 by Lala Khem Chand, merchant, near Kot Kisher Chand Gate. A water pump at a cost of Rs. 100 by Sheikh Ghulam Nabi, Khawaja, Basti Guzan, outside Dehlvi Gate, Basti Guzan. A water pump at a cost of Rs. 100 by Qazi Mehbub Alám, Rais, at Pir Jalal road. A water pump at a cost of Rs. 100 by public fund at Kucha Gujarān Kot Pashka. A water pump at a cost of Rs. 250 by public fund in Chauk Imam Nasir-ud-Din. A water pump at a cost of Rs. 100 by Lala Harbans Lal, Beri, in bazar Nauhrian. A water pump at a cost of Rs. 100 by Lala Kishori Lal, Nauhria, in bazar Nauhrian. A water pump at a cost of Rs. 100 by Bawa Hari Das near Sarai Sheikh Karam Bakhsh. A water pump at a cost of Rs. 100 by Lala Gujjar Mal, Halvai, outside Shagalān Gate. A water pump and repairs of a well at a cost of Rs. 500 by Lala Shih Sahai Ram Lal, Khatri, in chauk Jaggoo. A water pump at a cost of Rs. 100 by Mistri Allah Bakhsh in Rennick bazar near Girl School. A water pump at a cost of Rs. 100 by Lala Nathu Mal, cloth merchant, at G. T. Road, near Civil Hospital. A water pump at a cost of Rs. 100 by public fund in bazar Barpagian. A water pump at a cost of Rs. 100 by Puran Chand, son of Ghasita, Halvai, in bazar Sarafan, Basti Guzan. A water pump at a cost of Rs. 100 by public fund in Ali Takia. A water pump at a cost of Rs. 100 by public fund in Mohalla Chhoti Mori, Basti Guzan. A water pump at a cost of Rs. 100 by public fund in bazar Jamanwala, Basti Guzan. A water pump at a cost of Rs. 100 by Lala Khem Chand, merchant in district court. A water pump at a cost of Rs. 100 by Chaudhri Lakha, Sheikh, in bazar Keilewala, Kucha Nechabandan. A water pump at a cost of Rs. 100 by Mihan Singh in new habitation Chah Mehran.

8. *Ferozepore*.—A drainage at a cost of Rs. 1,040 by village communities in village Patto Hira Singh. A drainage at a cost of Rs. 502 by village communities in village Badhni. A drainage at a cost of Rs. 250 by village communities in village Lopon. A drainage at a cost of Rs. 100 by village communities in village Doudher. A drainage at a cost of Rs. 50 by village communities in village Buttar. A platform of the well at a cost of Rs. 100 by village communities in village Buttar. Draining at a cost of Rs. 268-8 by village communities in village Gholia Kalan. Draining at a cost of Rs. 60 by village communities in village Gill. Draining at a cost of Rs. 332 by village communities in village Jhandiana. Repairs of a well at a cost of Rs. 50 by village communities in village Darapur. Draining at a cost of Rs. 85 by village communities in village Salina. Draining at a cost of Rs. 318 by village communities in village Kokri Kalan. Draining at a cost of Rs. 97 by village communities in village Killi Chahlan. Draining at a cost of Rs. 442 by village communities in village Baga Purana. A parapet at a cost of Rs. 350 by Dilawar Khan, Zaildar, Diwan Khera, in Diwan Khera. A parapet at a cost of Rs. 45 by Bahawal Khan, Sufedposh Jandwala Miran Sangla at Jandwala Miran Sangla. A parapet at a cost of Rs. 400 by Fateh Muhammad Zaildar, Jandwala Bhime Shah, at Jandwal, Bhim Shah. A parapet and reservoir at a cost of Rs. 1,000 by Rupdamān Singh, Lambardar, of Thathi Bhai at Thathi Bhai. Three cesspits for disposal of waste water at a cost of Rs. 20 by Mamraj, Lambardar, Nihal Khera at Nihal Khera. Repair to parapets and platform at a cost of Rs. 40 by Maghar Singh, Zaildar, Waring in Waring. A parapet at a cost of Rs. 250 by Prem Singh, Zaildar, Gobind Garh in Gobind Garh. A parapet and drain for waste water at a cost of Rs. 350 by Khan Sahib Majhe Khan, Sufedposh, Patre Wala at Patre Wala. A parapet at a cost of Rs. 200 by Jai Singh, Zaildar, of Bidwali, at Chanu. A drinking water well at a cost of Rs. 200 by Sardar Santokh Singh and Sardar Kala Singh of Patto Hira Singh, Tahsil Moga, at Patto Hira Singh. A drinking water well at a cost of Rs. 200 by Lala Salig Ram of village Salhina, tahsil Moga, at Salhian. A drainage at a cost of Rs. 1,300 by Lt. Sodhi Harnam Singh, Chief of Sultan Khanwala, tahsil Ferozepore, at Sultan Khan Wala. Two water pumps at a cost of Rs. 80 by Lala Bhagat Ram, member Small Town Committee, Dharamkot in Chauk Soodan, Dharamkot. A water pump at a cost of Rs. 40 by Pandit Prabh Dial, Bhargwa of Zira in Chauk Mahtman, Zira. A water pump at a cost of Rs. 40 by Lala Maghi Mal, Rais and Municipal Commissioner, Zira, on main road Zira. A drinking water well and a water pump at a cost of Rs. 600 by Messrs. Anant Ram, Mangat Rai, Bankers of Ludhiana on station road, Moga. A water pump at a cost of Rs. 35 by Lala Mani Ram, son of Ratna, Chamar of Fazilka, in Kucha Chamaran, Fazilka.

LAHORE DIVISION.

9. *Lahore*.—A well at cost of Rs. 400 by Lala Jawala Ram, Bazaz of Chunian, in his own building but open to the public from outside. Five drinking, one pump and one parapet at a total cost of Rs. 1,260 by Lala Sain Das of Sangowal, the residents of village Pandori Nijran, Pandit Gurdit Chand of Kartarpur, Maula Bakhsh, Lambardar of village Ghug, Bhagat Singh of Dialpur, the residents of village Rastgo and by Sardar Uttam Singh of Manan in the rural areas of Jullundur district.

10. *Amritsar*.—A new parapet and a pipe in a well at a cost of Rs. 10 by public subscription in village Sarai Amanat Khan. Parapets and platforms of two existing wells at a cost of Rs. 100 by Bhai Gopal Singh of Pulkanjri and Sardar Arjan Singh in village Pulkanjri. Two wells at a cost of Rs. 500 by Maulvi Fazal Din, son of Imam Din and the Muhammadans of the village at Fatehabad. Parapet and platforms at a cost of Rs. 80 by public subscription in village Nurdy. Two wells at a cost of Rs. 300 each by M. Rustam Khan and Umroo in village Kot Muhammad Khan. A parapet of a well and construction of a persian wheel at a cost of Rs. 400 by the village panchayat of Srahli Mandan. A parapet and a platform of a well at cost of Rs. 34 by public subscription in village Janian. Two wells at a cost of Rs. 194-2 and Rs. 200, respectively, by Bhai Ganda Singh, Havalidar and Lala Shankar Das in village Sathiala. A parapet and a platform at a cost of Rs. 275 by Bhai Sant Singh in village Sathiala, parapets to 2 wells at a cost of Rs. 48 by Sardar Budha Singh and public subscription in village Wallah. Two wells at a cost, Rs. 300 by Umra, teli and Allah Ditta, weaver, in village Dheriwala. Parapets to 3 wells at a cost of Rs. 66 by public subscription in village Gaggomahl. A handpump at a cost of Rs. 25 by public subscription in village Gaggomahl. Parapet to 2 wells at a cost of Rs. 60 and Rs. 20 respectively by public subscription in village Harsehchhina. Parapets and platforms to 2 wells at a cost of Rs. 45 by public subscription in village Makowal. Parapet to a well at a cost of Rs. 90 by public subscription in village Mughlanikot. Paving of a drain at a cost of Rs. 25 through the efforts of Pandit Duni Chand in village Sarai Amanat Khan. Paving of a street at a cost of Rs. 100 by S. Hardit Singh and Hakim Singh, son of Natha Singh in village Balsarai. Paving of a lane at a cost of Rs. 140 by public subscription in village Tangra. Paving of a street at a cost of Rs. 180 by Puran Singh and Sohan Singh in village Mudhal. Filling up of a pond at a cost of Rs. 60 by Imam Din Faqir in village Mudhal. Filling up of a pond at a cost of Rs. 60 by Bahadur Singh, son of Jawa'l Singh, in village Miran Kot. Two pacca drains at a cost of Rs. 30 by public subscription in village Janian. Paving of a lane at a cost of Rs. 140 by public subscription in village Wallah. Paving of 10 lanes at a cost of Rs. 675 by public subscription in village Wadala Virum. Paving of 5 lanes at a cost of Rs. 543 by the villagers of village Pheruman. A pacca drain and pavement of lane Boharwali at a cost of Rs. 300 by the residents of Jagdevkalan.

11. *Gurdaspur*.—A well at a cost of Rs. 150 by Madhu Ram Sadha at village Marar, tehsil Batala. A water pump at a cost of Rs. 100 by Sahibzada Pir Manzoor Mohd. at Qadian. Parapet of a well and a pump at a cost of Rs. 200 by the inhabitants of mohalla Julkian, Batala.

12. *Sialkot*.—A pump at a cost of Rs. 100 by Miran Bakhsh, carpenter of village Kot Ghuman, tashil Daska, on the Jamke-Badiana road. A pump at a cost of Rs. 50 by the inhabitants of village Kotli Hira, tashil Daska. A well at a cost of Rs. 500 by Pandit Mohan Lal, Sarbrah Lambardar of village Siranwali, tehsil Daska, in village Mianwali, tashil Daska.

13. *Gujranwala*.—A drinking water well at a cost of Rs. 900 by Lala Nand Lal, son of Lachhman Singh, Arora, at Bharoki Chima, tashil Wazirabad. A water-pump for public use at a cost of Rs. 50 by Lala Karam Narain, Khatri of Jalalpur, at Jalalpur Nau on the Jalalpur-Vanike road.

RAWALPINDI DIVISION.

14. *Gujrat*.—A well at a cost of Rs. 925 by Malik Ahmad Khan, Twana, Tehsildar, Kharian, near Red Cross Centre at Kharian. A well at a cost of Rs. 500 by Phalla Awan of Sabour, on Gujrat-Bhimber road. A water pump at a cost of Rs. 50 by S. Mehr Shah of Badshahpur on road from Chillianwala to Mong. A pump at a cost of Rs. 50 by B. Haveli Ram of Saida on road from Phalia to Kadarabad. A pump at a cost of Rs. 50 by M. Ismail, Ghulam Rasul-Sharaf Din of Mangat on road from Phalia to Bahau-din.

15. *Shahpur district*.—A parapet to a well at a cost of Rs. 250 by public subscription in block No. 5 at Sargodha.

16. *Jhelum*.—A well at a cost of Rs. 100 by Mirza of village Ladhar at the road running from Dina to Sheikhupura. Supply of a well gear at a cost of Rs. 80 by Suba, pensioner in village Munara. A well at a cost of Rs. 2,800 jointly constructed by Makial Ahluwalias in village Diwalian. A well at a cost of Rs. 200 by Ahmad and Gaman in village Naurang.

17. *Rawalpindi*.—A drinking water well at a cost of Rs. 900 by villagers and District Board at Panjar (Kahuta).

18. *Attock*.—A well for drinking purposes at a cost of Rs. 450 by Lala Hira Nand of Hazro, tehsil Attock, on Campbellpore-Hatti road.

19. *Mianwali*.—A drinking water well at a cost of Rs. 50 by Lala Duni Chaud Nakra, of Isakhel, at Isakhel. A drinking water well at a cost of Rs. 800 by Ram Chand, Physician of Kammarmushani, at Pakka Kammarmushani. One drinking water well at a cost of Rs. 20 by village community at Trag Sharqi. Clearance of 17 wells at a cost of Rs. 83 by village community in Jalalpur. Clearance of 3 wells at a cost of Rs. 20 by village community at Kalabagh. Clearance of 8 wells at a cost of Rs. 40 by the village community at Kot Chandna. Clearance of 6 wells at a cost of Rs. 45 by the village community at Khudozai. A drinking water well at a cost of Rs. 2,000 by Hayat Mohd., son of Gul of Chorwala, at Chorwala. A drinking water well at a cost of Rs. 2,000 by Fateh Khan, son of Mohammad, of Wanbhachran, at Wan Bhachran. A drinking water well at a cost of Rs. 200 by Ghulam Ali, son of Mohammad, Jat Bhati by caste of Wan Bhachran, at Wan Bhachran. A building at a cost of Rs. 300 for Lower Middle School, by Faqir Sher Rasul Khan, son of Faqir Sher Mohammad Khan, at Rakh Piplan. A drinking water well at a cost of Rs. 1,500 by Mian Maluk Ali, son of Mian Mohammad Ali, at Mianwali. A drinking water well at a cost of Rs. 300 by Mst. Dai Jawai, mother of Mohammad Machhi of Kundian, at Kundian Pakka. A drinking well and an area of about 15 kanals with enclosures at a cost of Rs. 2,000 by the Panchayat of the village of Kundian, at Kundian Pakka.

MULTAN DIVISION.

20. *Montgomery*.—A drinking well at a cost of Rs. 600 by Lala Wasakhi Ram at Montgomery. A drinking well at a cost of Rs. 1,500 by Lala Gian Chand at Mandi. A drinking well at a cost of Rs. 1,000 by Sat Sang Sabha at Montgomery town.

21. *Lyallpur*.—A well for drinking purposes at a cost of Rs. 800 by Lala Indar Singh, son of Kishan Singh, Jat of Chak No. 58-J. B., tahsil Lyallpur and Arur Singh, son of Harnam Singh, Jat of Chak No. 58-J. B. at Narwala Road in Chak No. 58-J. B. A well for public use at a cost of Rs. 400 by Lala Jagiroo Ram, son of Palu, Brahmin, in Chak No. 475-G. B. A well for public use at a cost of Rs. 300 by Lala Shambhu Nath, in Chak No. 447-G. B. A tube well in Toba Tek Singh Dispensary at a cost of Rs. 140 by Lala Karam Chand, Arti, Lambardar, Toba Tek Singh.

22. *Jhang*.—A hand pump at a cost of Rs. 45 by M. Naurang and Sardara, sons of Muhammad, Haral of Chak No. 148, on a road from Chiniot to Aminpur. A hand pump at a cost of Rs. 25 by Lala Raja Ram, son of Ram Ditta, of village Sumandar, near Guddinwali bridge, Jhang-Chiniot road.

23. *Multan*.—A water pump by Lala Shankar Das, tahsil Multan, on Nirkot-Fazil Shah road. A water pump by Lala Radha Kishan, tahsil Multan, on Bahawalpur road.

24. *Muzaffargarh*.—Construction of Khanqah and a well therein at a cost of Rs. 564 by M. Illahi Bakhsh, son of Bakha, Jat, Khaglani, of Mauza Gulab Shah, tahsil Muzaffargarh, in Mauza Gulab Shah. A water pump at cost of Rs. 28 by Lala China Ram, son of Piara Ram, caste Virmani, of Muradabad, on Muzaffargarh-Rangpur road in Mauza Dunyapur.

25. *Dera Ghazi Khan*.—A well at a cost of Rs. 450 by Lala Udho Dass, petition-writer, in block No. 1, Dera Ghazi Khan. A well at a cost of Rs. 400 by M. Khan Mohammad Khosa, in block U, Dera Ghazi Khan.

APPENDIX V.
Statement showing the death-rates from cholera, small-pox, fever and dysentery and diarrhoea, for the five years preceding and for the period since the introduction of drainage or water-supply or both in the under-mentioned towns :—

Towns.	DATE OF COMPLETION OF WORKS OF		AVERAGE ANNUAL DEATH-RATE SINCE THE INTRODUCTION OF DRAINAGE OR WATER-SUPPLY OR BOTH.						AVERAGE ANNUAL DEATH-RATE FOR THE FIVE YEARS PERIOD PRECEDING THE INTRODUCTION OF DRAINAGE OR WATER-SUPPLY OR BOTH.			REMARKS.								
			Drainage.		Water-supply.		Cholera.		Smallpox.		Fever.		Cholera.		Smallpox.		Fever.			
	1	2	3	4	5	6	7	8	9	10	11	12	Dysentery and diarrhoea.							
Rohtak	..	1923	..	0·27	0·25	0·21	13·37	1·15	0·5	0·3	27·7	1·2								
Rewari	1920	0·36	0·40	0·41	7·18	1·51	0·4	0·4	8·5	3·2								
Ambala	1895	0·40	0·34	0·34	12·32	2·83	0·5	0·4	19·3	6·4								
Simla	..	1893	..	0·02	0·08	0·08	11·85	0·99	..	1·1	17·1	1·4								
Dharmshala	1908	0·48	0·78	0·93	9·58	1·85	0·3	..	6·1	1·6								
Hoshiarpur	1925	..	0·26	0·37	11·76	0·78	0·2	0·7	9·5	0·1								
Jullundur	..	1924	..	0·25	0·81	0·81	11·56	2·49	0·4	0·2	11·9	2·3								
Ludhiana	..	1895	1909	..	0·44	1·08	12·20	1·53	0·6	0·4	2·7	20·8	1·6							
Jagraon	..	1907	..	0·46	0·54	0·54	11·96	1·39	0·2	0·6	1·5	9·3	2·0							
Ferozepore	..	1916	..	0·46	0·46	0·46	1·15	1·15	0·2	0·7	9·8	1·1								
Zira	..	1913	..	0·81	0·80	0·08	1·06	21·05	1·55	2·2	4·0	16·6	0·9							
Fazilka	..	1913	..	0·80	0·08	2·21	12·00	0·87	0·04	0·04	2·6	21·4	1·7							
Muktsar	1925	0·08	0·45	0·45	8·86	0·34	..	1·1	11·3	1·1								
Abohar	1929	..	0·26	0·81	12·52	2·05	0·2	0·6	20·0	1·3								
Lahore	..	1921	1881	..	1·99	0·30	13·76	1·24	1·6	1·0	21·8	1·0								
Kasur	..	1922	..	..	0·50	1·04	21·37	1·52	0·4	0·7	31·3	1·8								
Amritsar	..	1885	1904	..	0·69	0·44	16·56	1·36	0·03	1·0	17·1	0·7								
Jandiala	..	1924	..	..	0·18	0·44	15·35	2·37	0·6	9·3	14·2	3·1								
Gurdaspur	..	1918	..	..	0·03	0·05	10·79	1·61	..	..	9·6	2·4								
Dalhousie	1894	..	1·15	0·44	17·76	2·79	0·8	0·7	12·4	2·8								
Pathankot	..	1915	..	..	0·51	0·34	13·60	2·13	3·0	1·2	9·6	2·3								
Sialkot	1915	..	0·51	0·98	18·18	1·20	0·5	0·6	19·7	1·7								
Gujranwala	..	1892	..	..	0·51	0·10	3·18	..	..	0·2	4·4	0·1								
Khangah Dogran	..	1929	..	..	..	0·71	0·10	3·18	..	..	10·4	7·1								
Sangla	1924	..	..	0·21	0·43	2·52	0·07	..	1·1	0·2								
Chuharkana Mandi	..	1928	..	..	..	0·09	4·42	0·26	0·4	0·2	4·6	0·6								
Gujrat	..	1906	..	..	..	0·29	18·39	1·69	0·3	0·2	16·9	1·9								
Bhera	..	1917	..	..	..	0·21	0·64	20·36	1·88	0·03	0·7	17·8	1·7							
Sargodha	1907	1907	0·08	0·32	7·23	0·94	0·20	..	Not available.	Not available.								
Sillanwali	..	1922	1926	0·05	..	3·63	0·20	11·68	1·10	..	(b) 2·3	2·7								
Bhalwal	..	1925	1928	1·14	0·98	0·90	15·29	1·70	0·1	10·1	†0·3	†8·3								
Khushab	1923	0·03	..	0·37	0·44	12·30	1·47	1·5	0·3	14·3	1·6							
Jhelum	..	1908	..	..	0·95	0·41	19·65	2·38	1·1	0·7	14·0	2·1								
Pind Dadan Khan	..	1909	1909	0·41	0·95	0·37	17·70	2·16	0·5	0·1	23·1	3·6								
Rawalpindi	..	1907	1887	0·56	0·07	0·09	13·87	1·60	0·7	0·4	14·8	0·9								
Murree	1894	..	..	0·13	0·40	17·40	1·50	..	Not available.	Not available.								
Mianwali	1904	1904	0·09	0·72	10·31	0·65	0·28	*0·4	*0·4	*2·1								
Layalpur	1916	0·12	0·42	7·02	0·59	1·61	0·12	..	†0·5	†..								
Gojra	1924	0·12	0·74	4·00	0·19	1·62	0·04	0·8	0·8	4·6								
Tandianwala	..	1917	1913	0·01	..	0·14	1·62	1·93	0·08	(a) 4·6	(a) 4·6	(a) 0·4								
Toba Tek Singh	..	1920	..	..	..	0·02	1·93	0·08	..	Not available.	Not available.	..								
Chak Jhumra	..	1929	1913	..	..	0·01	0·01	1·61	0·09	1·61	1·61	..								
Jaranwala	..	1918	..	..	..	..	..	..	..	..	..	..
Multan	..	1907	1928	0·001	0·04	1·86	0·41	0·41	0·04	0·05	1·57	0·7								
Shujabad	..	1922	..	..	..	0·05	0·51	19·98	2·24	2·0	1·0	31·1	2·9							
Dera Ghazi Khan	1913	..	..	0·27	15·24	1·99	1·7	0·6	15·9	1·6								
Kalka	1890	..	..	0·13	0·34	0·13	13·53	1·7	15·2	3·9								

XVII.

A.—TABLE SHOWING THE MEAN MONTHLY TEMPERATURE AND DEPARTURE FROM NORMAL FOR 12 METEOROLOGICAL STATIONS IN THE PLAINS OF THE PUNJAB
AND DELHI FOR THE YEAR 1930.

APPENDIX VI.

Station. Serial No.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		REMARKS.
	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	M. T.	Dep.	
1 Delhi ..	51.7	-0.8	56.6	0.6	69.0	-0.5	80.5	-2.0	88.7	-0.8	89.2	-3.1	83.4	-2.7	82.5	-0.2	81.8	-0.9	73.2	-1.7	61.6	-3.9	50.5	..	
2 Hissar ..	46.5	-1.2	53.5	1.3	67.1	1.3	78.1	-2.2	87.0	-1.3	87.3	-4.5	84.1	-5.3	82.8	-3.5	81.5	-2.3	73.4	-0.5	59.6	-1.0	49.2	-0.2	
3 Ambala ..	47.7	-0.9	53.3	1.0	63.2	2.1	74.6	+1.6	87.0	+1.4	87.8	-0.7	82.1	-2.1	83.4	+1.3	79.5	+0.1	72.6	+1.5	57.0	-0.1	45.5	-1.0	
4 Ludhiana ..	45.3	-2.3	51.9	0.3	63.3	0.3	74.8	-1.7	86.0	0.2	86.7	-2.5	83.4	-3.3	84.0	0.9	77.3	-2.3	71.9	+0.2	55.0	-1.0	43.8	-0.7	
5 Lahore ..	44.0	-2.5	52.1	1.8	64.0	2.1	74.5	-1.1	86.8	0.8	88.6	-0.9	83.9	-3.7	85.8	0.7	80.2	-0.7	70.3	+1.1	53.4	-0.9	42.6	-0.2	
6 Sialkot ..	45.5	-3.1	51.7	1.0	61.9	0.5	71.6	-3.5	85.9	-0.5	88.7	-1.9	82.7	-3.3	84.1	0.9	78.8	-0.9	72.2	+0.7	57.5	-1.1	44.2	-0.9	
7 Rawalpindi ..	41.7	-1.8	48.7	2.1	62.2	2.5	69.1	-1.7	85.4	0.6	91.2	-0.8	82.5	-2.9	86.2	1.6	77.9	-1.1	69.7	+0.9	52.9	-0.4	43.1	+0.6	
8 Khushab ..	46.0	-1.3	53.8	2.1	67.4	2.8	76.0	-1.7	88.6	-1.1	90.0	-2.5	86.5	-2.7	88.0	0.9	83.0	-1.0	75.4	+0.1	57.7	-1.1	46.7	+0.6	
9 Lyallpur ..	44.0	-2.1	51.4	1.8	61.9	1.5	73.0	-0.7	85.8	0.1	88.4	-1.9	84.8	-4.7	85.9	0.5	81.3	-0.5	70.8	+0.2	58.2	+0.1	45.8	+1.9	
10 Montgomery	45.6	-2.1	53.1	1.5	65.3	1.7	75.8	-1.9	88.0	-1.3	89.6	-2.9	84.7	-6.1	85.6	-1.7	82.6	-1.1	73.8	-0.6	59.8	-1.7	49.5	+0.7	
11 Multan ..	48.2	-1.1	55.4	2.9	67.5	2.4	77.4	-1.1	90.0	1.6	93.3	+0.7	89.6	-2.1	89.2	0.9	86.1	-1.6	76.9	+1.5	63.7	+0.3	53.4	+1.9	
12 Bahawalpur ..	45.8	..	54.8	..	66.9	..	77.8	..	90.0	..	92.6	..	88.6	..	88.0	..	86.4	..	74.2	..	59.8	..	48.0	..	
13 Khanpur ..	47.8	..	53.9	..	68.0	..	78.3	..	89.4	..	92.9	..	88.4	..	84.3	..	83.9	..	75.6	..	62.1	..	50.4	..	

(b) Mean of 30 days.

APPENDIX VI—CONTINUED.

B.—TABLE SHOWING MEAN MONTHLY RELATIVE HUMIDITY AND DEPARTURE FROM NORMAL FOR THE YEAR 1930.

Stations.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		REMARKS.
	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	R. H.	Dep.	
1 Delhi ...	67	-2	68	4	43	-9	34	-5	30	-11	48	-7	83	9	75	-2	63	-8	59	5	51	-4	52	...	XViii
2 Hissar ...	75	0	74	4	53	-4	44	+2	41	3	57	7	77	11	73	3	59	-7	45	-8	49	-11	57	-13	
3 Ambala ...	84	-1	79	1	57	-6	40	-8	28	-15	44	-15	83	4	73	-11	72	-7	56	-12	60	-13	68	-12	
4 Ludhiana ..	86	4	84	8	60	-2	48	+2	31	-8	49	-3	79	7	70	-8	75	1	56	-5	65	0	79	+3	
5 Lahore ...	89	4	83	4	62	-4	57	6	45	3	54	3	85	16	72	-3	72	+2	64	2	80	7	87	5	
6 Sialkot ...	87	4	84	4	66	-3	57	4	39	-4	48	-4	81	9	73	-7	67	-6	50	-12	63	-7	75	-4	
7 Rawalpindi...	84	2	76	-2	50	-19	55	-1	31	-10	34	-11	75	7	62	-15	58	-11	47	-12	52	-13	(a) 57	-18	
8 Khushab	60	-8	64	-2	40	-16	45	2	28	-6	42	0	80	17	67	-2	55	-6	39	-7	39	-12	(a) 53	-7	
9 Lyallpur ...	76	-8	78	1	58	-10	49	-4	37	-3	48	-1	77	14	66	-5	59	-7	55	-6	58	-11	69	-11	
10 Montgomery	76	4	72	7	53	1	50	+12	46	14	60	19	77	19	70	7	63	+6	53	9	60	8	65	1	
11 Multan ...	76	5	72	6	51	-7	51	-5	46	-5	68	4	64	...	46	...	56	-5	56	-9	43	-13	48	-12	
12 Bahawalpur	62	...	65	...	59	...	54	...	40	...	46	...	71	...	64	...	56	...	56	...	51	...	67	...	
13 Khanpur ..	64	...	64	...	48	...	45	...	41	...	50	...	71	...	70	...	66	...	54	...	56	...	59	...	

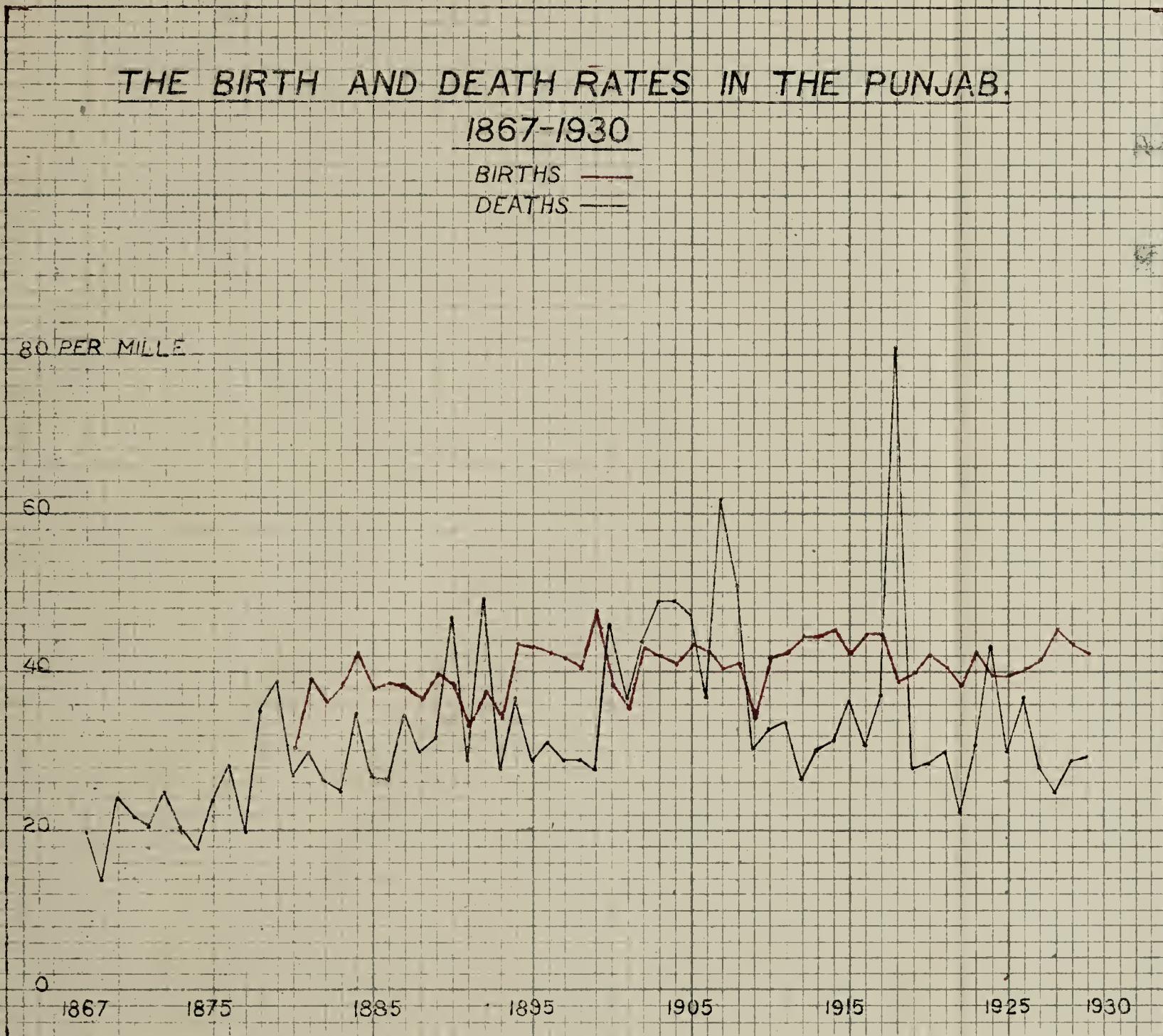
(a) Mean of 29 days.

APPENDIX VI—CONCLUDED.

C.—TABLE SHOWING MEAN MONTHLY RAINFALL AND DEPARTURE FROM NORMAL FOR THE YEAR 1930.

Stations.	JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.			JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.		
	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.	A. R.	Dep.				
1 Delhi ..	2.09	1.05	1.10	+ 0.34	0.0	- 0.52	0	- 0.39	0.40	- 0.18	3.74	+ 0.76	1.316	+ 5.63	1.69	- 5.73	1.60	- 3.18	0.81	0.49	0.02	- 0.09	0.08	- 0.32	"	"	"	"	"	"	"	"	"	"	"	
2 Hissar ..	0.19	- 0.52	0.33	- 0.02	0.26	- 0.16	0.19	- 0.20	0.07	- 0.52	3.41	1.77	10.23	+ 6.47	4.28	0.66	0.33	- 2.03	0.06	- 0.25	0.18	+ 0.15	0.0	- 0.29	"	"	"	"	"	"	"	"	"	"	"	
3 Ambala ..	1.83	0.34	1.84	0.19	1.11	0.21	0.37	- 0.21	0.0	- 0.87	6.77	3.02	24.66	+ 17.31	8.95	1.25	2.09	- 2.51	0.57	- 0.18	0.0	- 0.28	1.20	0.63	"	"	"	"	"	"	"	"	"	"	"	
4 Ludhiana ..	1.45	- 0.27	1.34	0.05	0	- 1.06	0.92	0.07	0.20	- 0.44	4.09	1.56	10.22	+ 2.02	2.86	- 4.08	7.77	3.53	0.03	- 0.45	0.03	- 0.08	1.15	0.50	"	"	"	"	"	"	"	"	"	"	"	
5 Lahore ..	0.60	- 0.45	0.20	- 0.74	0.03	- 0.83	1.36	0.82	0.0	- 0.30	0.61	- 1.07	9.88	+ 4.40	1.63	- 3.70	0.98	- 1.38	0.01	- 0.24	0.0	- 0.07	0.0	- 0.36	"	"	"	"	"	"	"	"	"	"	"	
6 Sialkot ..	1.92	- 0.19	0.77	- 0.82	0.36	- 1.22	6.18	5.24	0.0	- 1.13	0.60	- 1.86	8.42	+ 0.56	5.29	- 3.62	3.54	0.17	0.18	- 0.12	0.0	- 0.11	0.0	- 0.66	"	"	"	"	"	"	"	"	"	"	"	
7 Rawalpindi	5.46	2.97	2.73	0.54	0.36	- 2.08	5.48	3.54	0.37	- 0.97	1.13	- 1.11	17.83	+ 10.17	8.73	- 0.41	3.38	- 0.08	0.98	0.47	0.10	- 0.16	0.01	- 1.09	"	"	"	"	"	"	"	"	"	"	"	
8 Khushab ..	1.76	0.99	0.05	- 0.84	0.14	- 1.01	1.83	0.78	0.50	- 0.29	2.08	+ 0.71	3.96	+ 0.32	0.99	- 2.23	0.97	- 0.34	0.07	- 0.10	0.0	- 0.08	0.0	- 0.45	"	"	"	"	"	"	"	"	"	"	"	
9 Lyallpur ..	1.37	0.99	0	- 0.31	0.16	- 0.64	0.33	- 0.55	0.53	0.15	1.40	0.07	4.22	+ 1.37	3.25	- 1.53	0.19	- 1.81	0.04	- 0.30	0.0	- 0.01	0.0	0.35	"	"	"	"	"	"	"	"	"	"	"	
10 Montgomery	0.19	- 0.37	0	- 0.46	0.09	- 0.40	0.08	0.28	0.08	- 0.27	1.15	0.27	7.15	+ 4.93	1.16	- 2.12	0.77	- 0.76	0.00	- 0.06	0.0	- 0.07	0.0	- 0.30	"	"	"	"	"	"	"	"	"	"	"	
11 Multan ..	0.25	- 0.17	0	- 0.36	0.10	- 0.33	1.15	0.88	0	- 0.35	1.22	0.60	2.19	+ 0.17	0.15	- 1.83	0	0.41	0.00	- 0.05	0.0	- 0.07	0.0	- 0.22	"	"	"	"	"	"	"	"	"	"	"	
12 Bahawalpur	0.11	...	0	...	0.0	...	0.03	0.03	0.07	...	1.16	...	3.90	...	0.03	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
13 Khanpur ..	0.04	...	0.04	...	0.05	...	0.0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.12	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	

CHART 1



INFANTILE MORTALITY RATE IN THE PUNJAB.

1880-1930

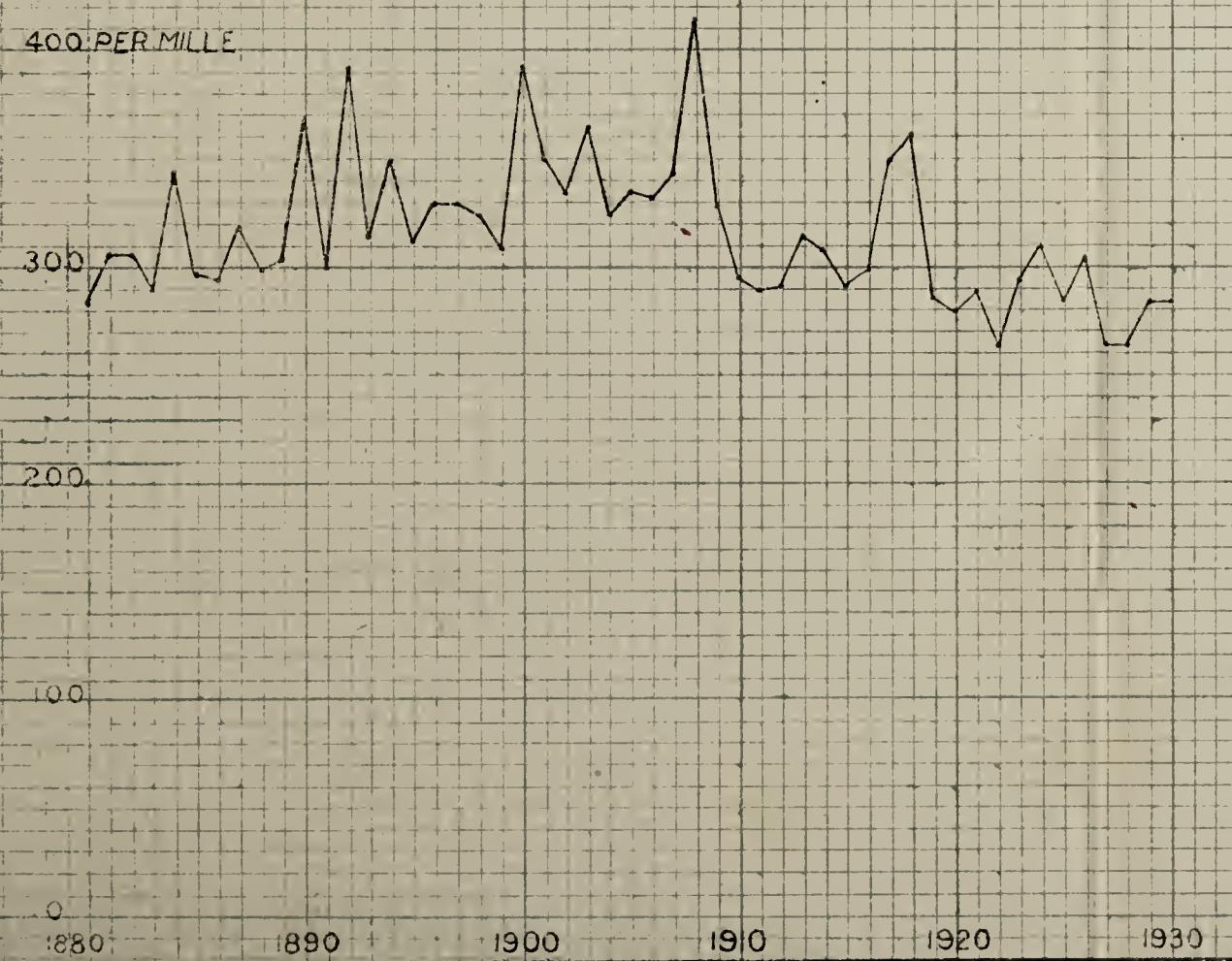


CHART II

DEATH RATE FROM CHOLERA IN THE PUNJAB
1867-1930

4 PER MILLE

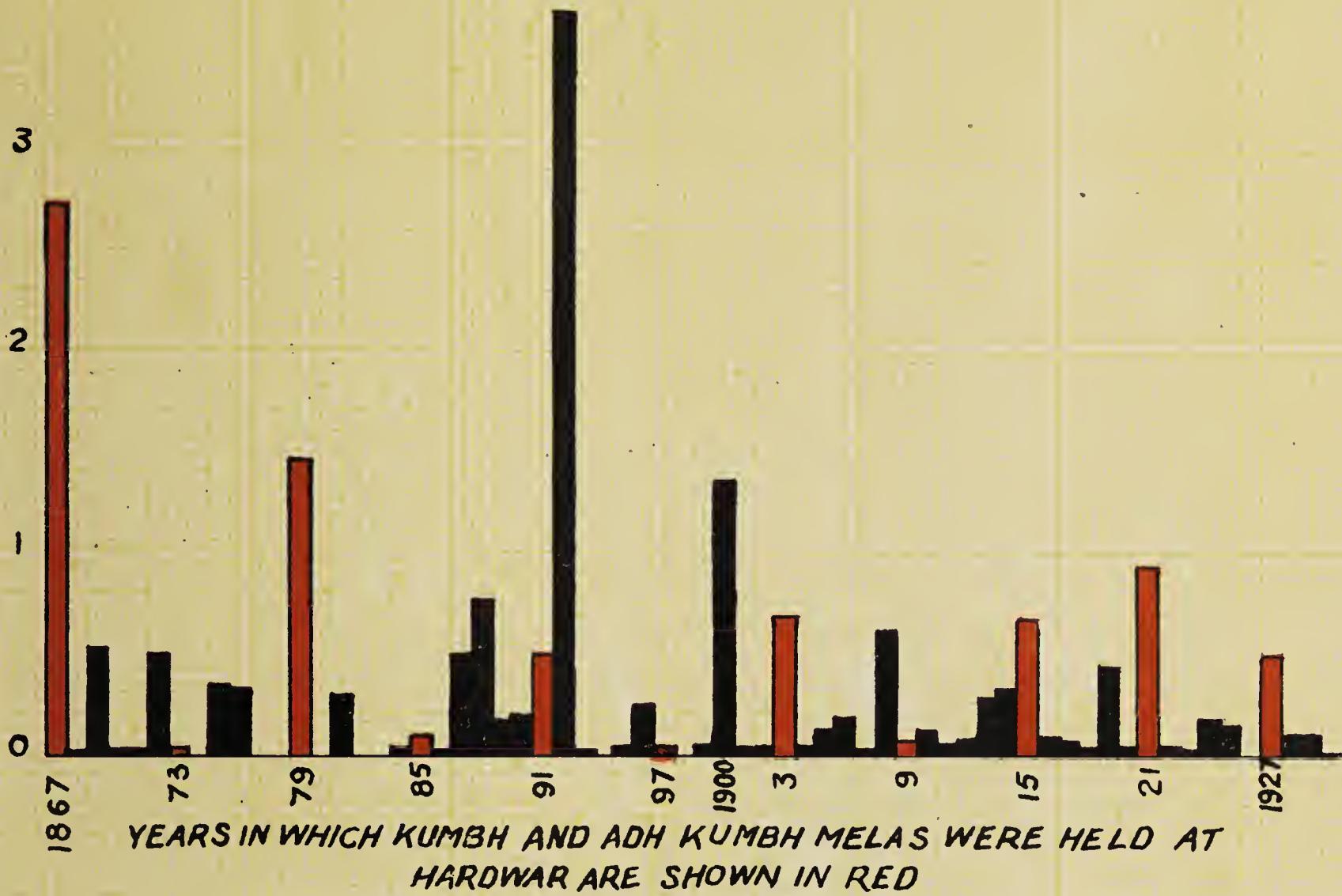


DIAGRAM SHOWING TOTAL NUMBER OF CASES AND DEATHS

FROM CHOLERA BY WEEKS IN THE PUNJAB

DURING THE YEAR-1930





CHART III

DEATH RATE FROM SMALL POX IN THE PUNJAB
4 PER MILLE
1867-1930

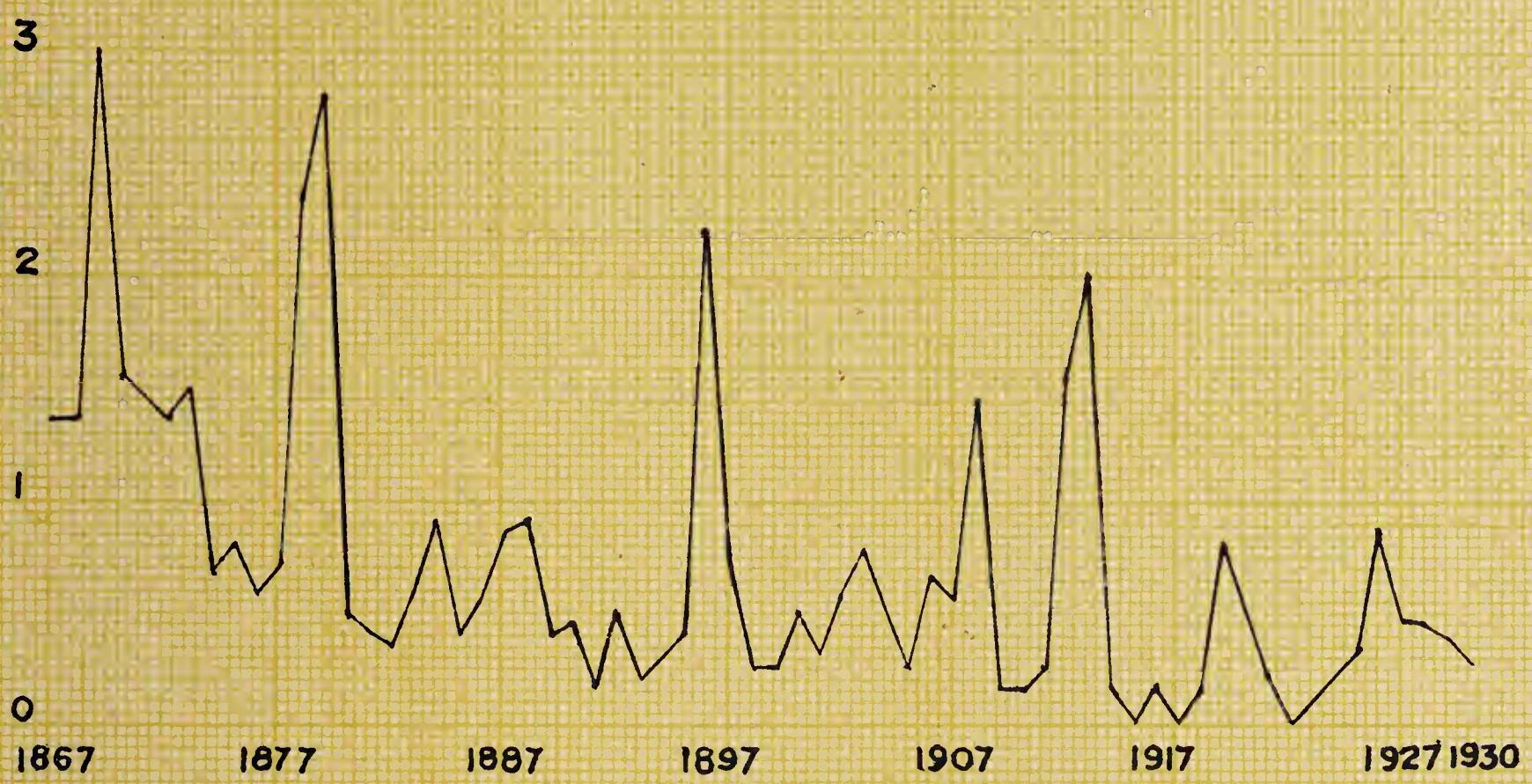


DIAGRAM SHOWING TOTAL NUMBER OF CASES AND DEATHS
FROM SMALLPOX BY WEEKS IN THE PUNJAB

DURING THE YEAR - 1930

CASES ... ■■■■■

DEATHS ... ■■■■■

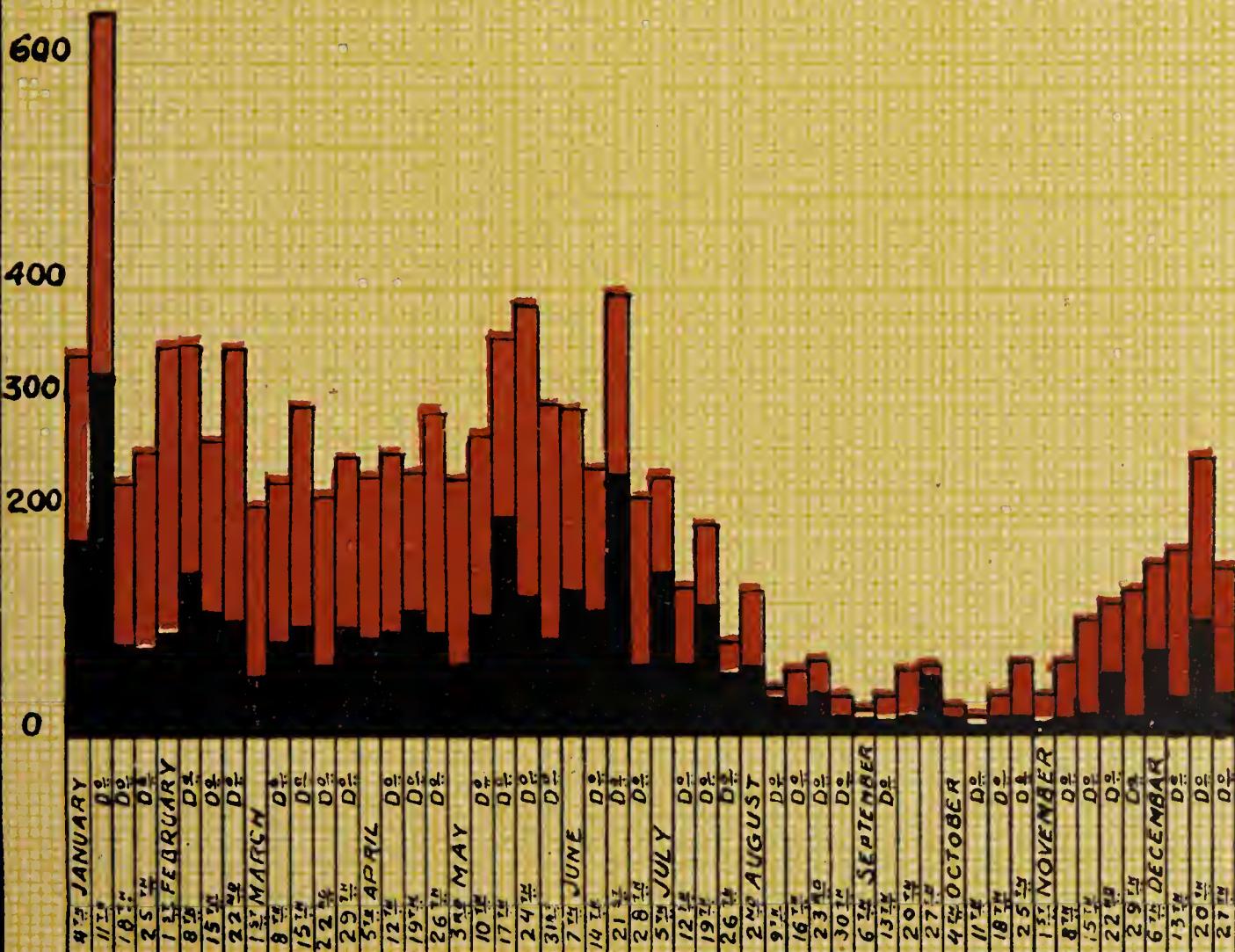




CHART IV

ANNUAL PLAGUE DEATH RATE IN THE PUNJAB

1898-1930

30 PER MILLE.

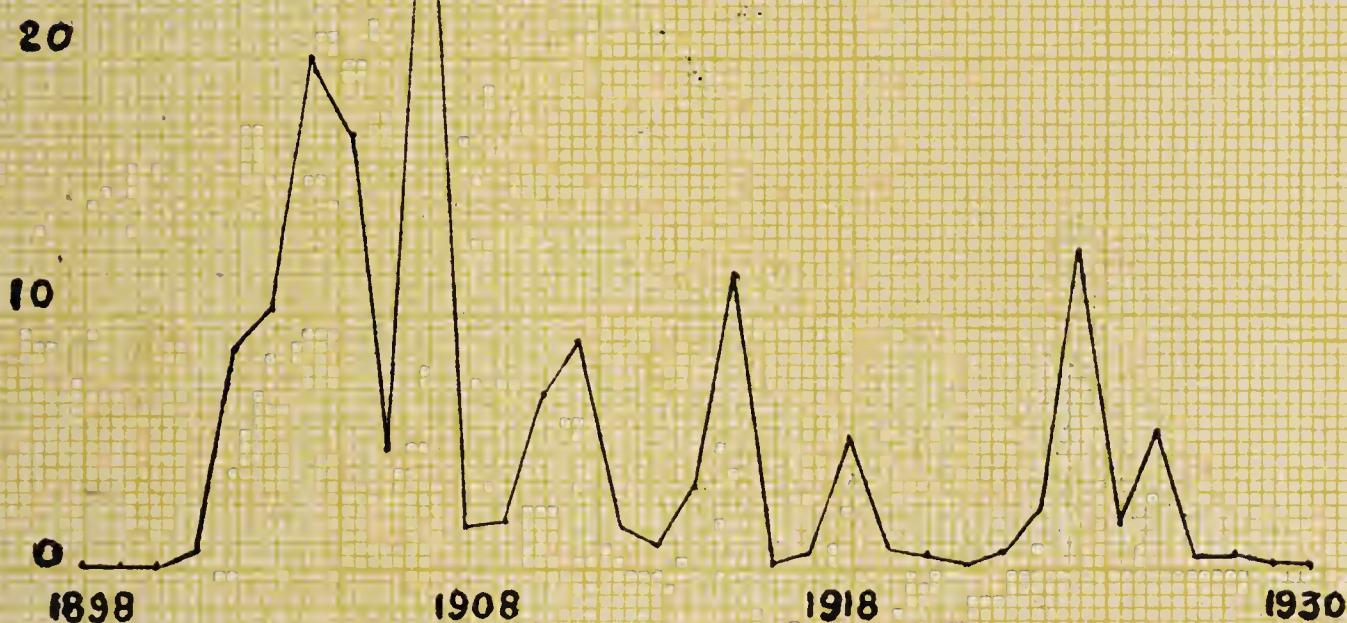


DIAGRAM SHOWING TOTAL NUMBER OF CASES AND DEATHS
FROM PLAGUE BY WEEKS IN THE PUNJAB
DURING THE YEAR 1930

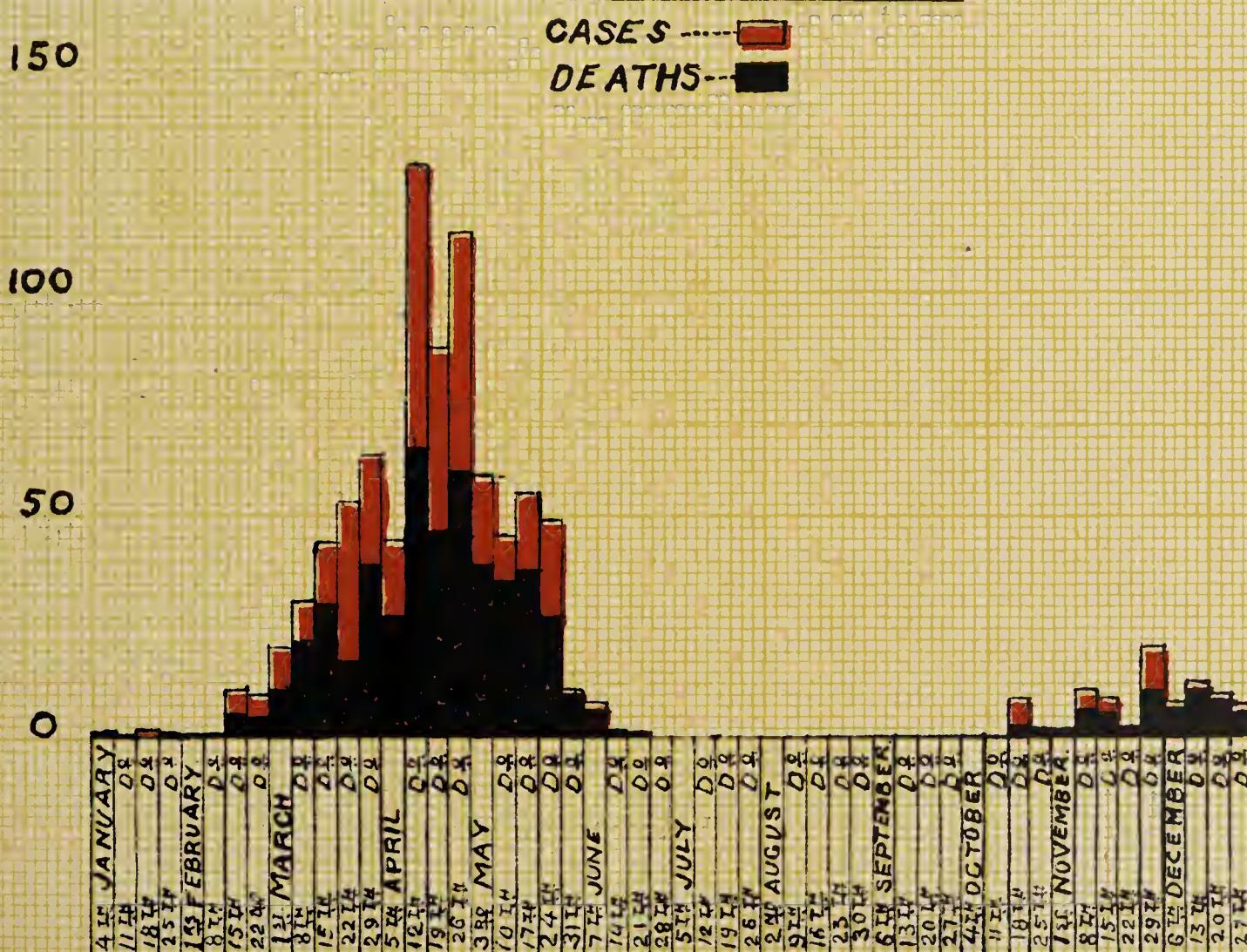
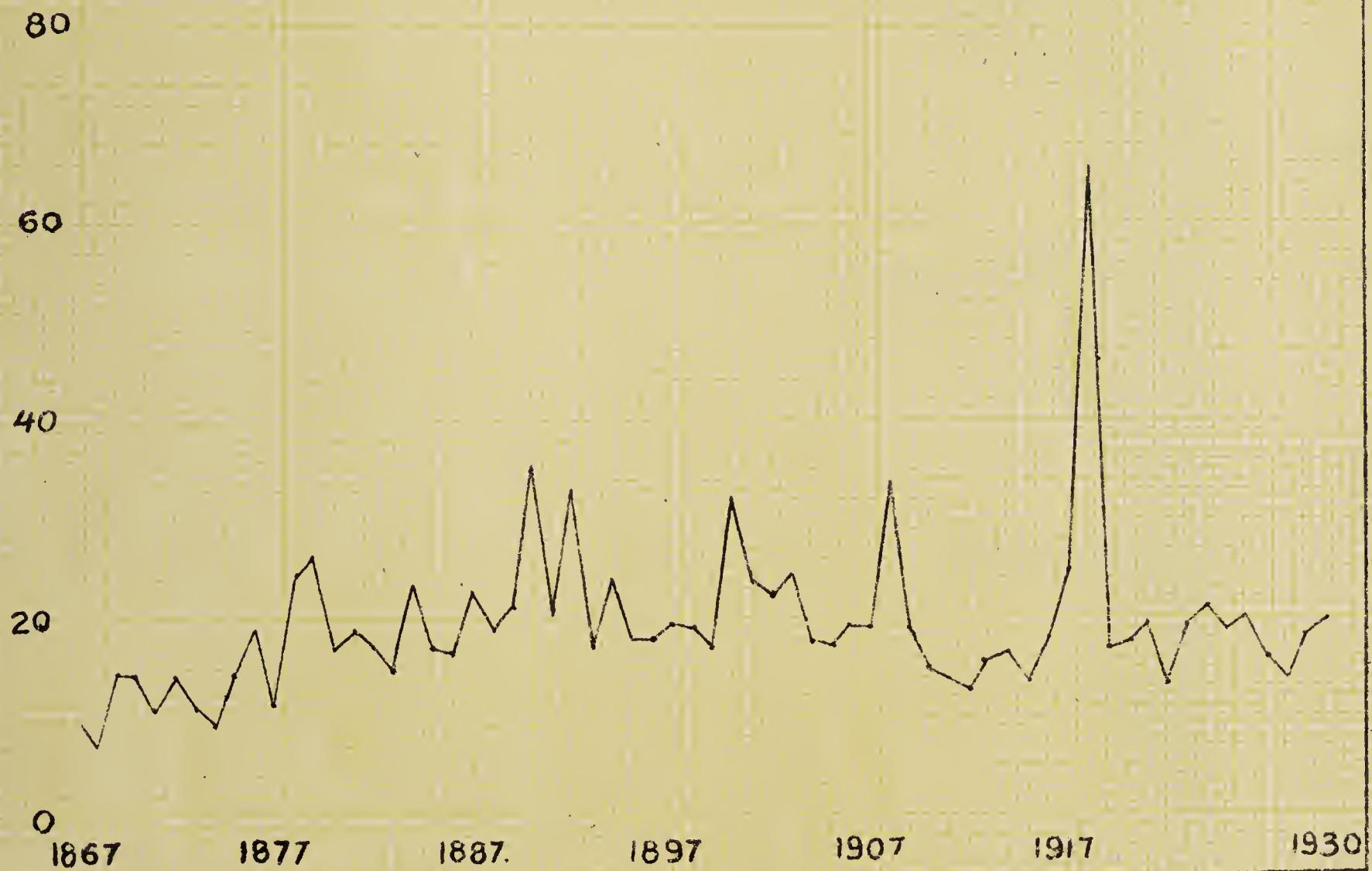


CHART IV

DEATH RATE FROM FEVERS IN THE PUNJAB
1867-1930



SPLEEN RATE OF THE PUNJAB BY DISTRICTS

FOR
1930

HISSAR	JUNE.	NOV.	0
ROHTAK	JUNE.	NOV.	40
GURGAON	JUNE.	NOV.	0
KARNAL	JUNE.	NOV.	0
AMBALA	JUNE.	NOV.	0
SIMLA	JUNE.	NOV.	0
KANGRA	JUNE.	NOV.	0
HOSHAI'R PUR	JUNE.	NOV.	0
JULLUNDUR	JUNE.	NOV.	0
LUDHIANA	JUNE.	NOV.	0
FEROZE PORIE	JUNE.	NOV.	0
LAHORE	JUNE.	NOV.	0
AMRITSAR	JUNE.	NOV.	0
GURDASPUR	JUNE.	NOV.	0
SIALKOT	JUNE.	NOV.	0
GJURANWAL	JUNE.	NOV.	0
SHEIKHUPURA	JUNE.	NOV.	0
GUJRAT	JUNE.	NOV.	0
SHAHPUR	JUNE.	NOV.	0
JHELUM	JUNE.	NOV.	0
ATTOKH	JUNE.	NOV.	0
MANWALI	JUNE.	NOV.	0
MONTGOMERY	JUNE.	NOV.	0
LYALLPUR	JUNE.	NOV.	0
JHANG	JUNE.	NOV.	0
MULTAN	JUNE.	NOV.	0
MUZAFFARGARH	JUNE.	NOV.	0
D.G. KHAN	JUNE.	NOV.	0

CHART VII.

VACCINATION OPERATIONS IN THE PUNJAB.

FROM 1885-86 TO 1930-31.

PRIMARY VACCINATION - ■

RE. VACCINATION -- □

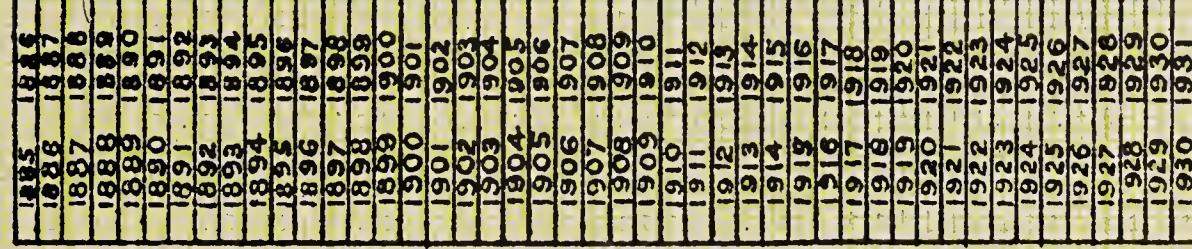
800000

600000

400000

200000

0



VACCINATION OPERATIONS IN THE PUNJAB PER 1000.

OF POPULATION.

1885-86 TO 1930-31.

70

60

40

20

0

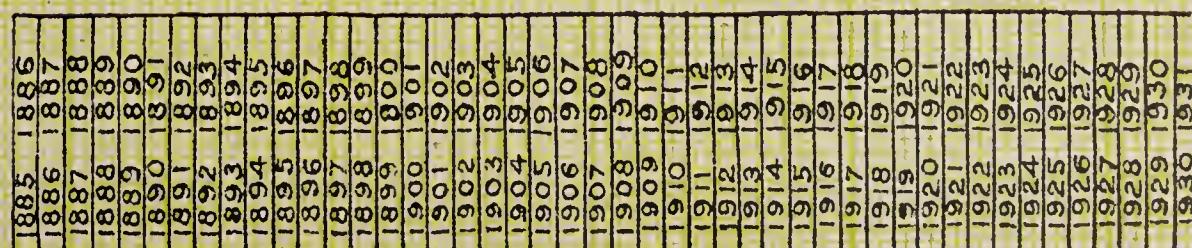
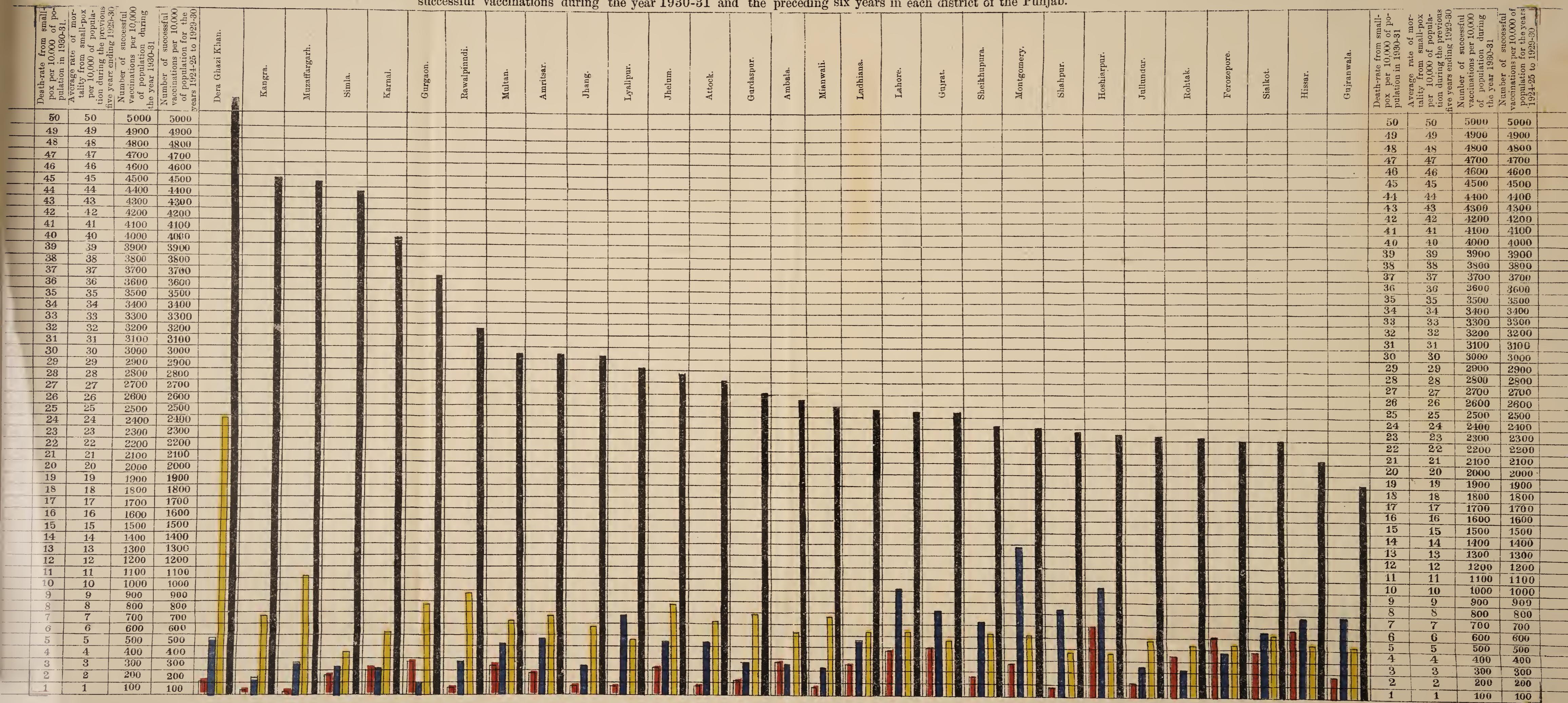




CHART VIII

Diagram showing the death-rate from small-pox per 10,000 of population during the year 1930-31, the average rate of mortality from small-pox per 10,000 of population for the five years ending 1929-30 and the proportion of successful vaccinations during the year 1930-31 and the preceding six years in each district of the Punjab.



NOTE.—Red lines indicate death rates from small-pox per 10,000 of population during the year 1930-31

NOTE.—Blue lines indicate the average rate of mortality from small-pox per 10,000 of population for the previous five years ending 1929-30

NOTE.—Yellow lines indicate the proportion of successful vaccinations per 10,000 of population during the year 1930-31.

NOTE.—Black lines indicate the proportion of successful vaccinations per 10,000 of population for the six years ending 1929-30

ANNUAL FORMS (PUBLIC HEALTH).

ANNUAL FORM No. I.

STATEMENT SHOWING THE BIRTHS REGISTERED IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1930.

1 Number.	2 DISTRICTS.	3 POPULATION ACCORDING TO CENSUS OF 1921.*			4 NUMBER OF BIRTHS REGISTERED.			5 RATIO OF BIRTHS PER 1,000 OF POPULATION.			6 Number of males born to every 100 females born.	7 Excess of birth over deaths per 1,000 of population.	8 Excess of deaths over births per 1,000 of population.	9 MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.			10 Number.
		1 Males.	2 Females.	3 Total.	6 Males.	7 Females.	8 Total.	9 Males.	10 Females.	11 Total.				15 Males.	16 Females.	17 Total.	
1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
	AMBALA DIVISION.																
1	Hissar ..	435,562	381,248	816,810	19,112	16,513	35,625	23.4	20.2	43.6	115.7	15.7	..	24.0	21.7	45.6	1
2	Rohtak ..	417,379	354,893	772,272	20,012	18,064	38,076	25.9	23.4	49.3	110.8	18.4	..	22.1	20.1	42.1	2
3	Gurgaon ..	367,800	314,203	682,003	17,096	15,328	32,424	25.1	22.5	47.5	111.5	7.4	..	24.4	22.0	46.3	3
4	Karnal ..	453,637	375,089	828,726	15,886	13,977	29,863	19.2	16.9	36.0	113.7	6.8	..	20.5	18.4	38.9	4
5	Ambala ..	360,967	280,942	641,909	15,036	13,474	28,510	23.4	21.0	44.4	111.6	15.0	..	22.1	19.8	41.9	5
6	Simla ..	27,599	13,338	40,937	568	535	1,103	13.9	13.1	26.9	106.2	4.5	..	12.9	12.1	25.1	6
	JULLUNDUR DIVISION.																
7	Kangra ..	393,121	371,626	764,747	15,015	14,033	29,048	19.6	18.3	38.0	107.0	10.0	..	18.8	17.6	36.4	7
8	Hoshiarpur	498,662	428,757	927,419	21,463	19,374	40,837	23.1	20.9	44.0	110.8	13.9	..	23.1	20.5	43.6	8
9	Jullundur ..	450,045	363,480	813,525	19,676	18,379	38,055	24.2	22.6	46.8	107.1	16.9	..	24.1	22.5	46.6	9
10	Ludhiana ..	318,845	248,777	567,622	14,044	12,779	26,823	24.7	22.5	47.3	109.9	16.6	..	23.9	22.3	46.2	10
11	Ferozepore LAHORE DIVISION.	598,760	480,547	1,079,307	23,985	20,978	44,963	22.2	19.4	41.7	114.3	13.0	..	21.4	18.6	40.0	11
12	Lahore ..	636,596	480,134	1,116,730	26,581	23,552	50,133	23.8	21.1	44.9	112.9	16.8	..	21.6	19.2	40.8	12
13	Amritsar ..	518,500	409,898	928,398	25,366	22,670	48,036	27.3	24.4	51.7	111.9	20.6	..	25.0	22.7	47.7	13
14	Gurdaspur	467,576	380,238	847,814	22,958	21,165	44,123	27.1	25.0	52.0	108.5	21.5	..	24.7	22.9	47.6	14
15	Sialkot ..	472,231	396,703	868,934	23,092	20,677	43,769	26.6	23.8	50.4	111.7	23.0	..	23.5	21.6	45.1	15
16	Gujranwala	348,695	274,886	623,581	15,564	13,675	29,239	25.0	21.9	46.9	113.8	13.2	..	24.3	21.7	46.0	16
17	Sheikhupura RAWALPINDI DIVISION.	351,259	277,163	628,422	15,813	13,894	29,707	25.2	22.1	47.3	113.8	10.4	..	22.2	19.3	41.4	17
18	Gujrat ..	438,550	385,496	824,046	18,012	16,041	34,053	21.9	19.5	41.3	112.3	14.5	..	21.1	18.9	40.0	18
19	Shahpur ..	392,086	327,832	719,918	14,139	12,231	26,370	19.6	17.0	36.6	115.6	6.1	..	21.5	19.1	40.6	19
20	Jhelum ..	240,464	235,104	475,568	9,685	8,737	18,422	20.4	18.4	38.7	110.9	9.9	..	20.7	18.3	39.0	20
21	Rawalpindi	292,317	248,376	540,693	11,145	9,896	21,041	20.6	18.3	38.9	112.6	11.1	..	21.0	18.8	39.9	21
22	Attock ..	262,028	246,001	508,029	9,183	7,694	16,877	18.1	15.1	33.2	119.4	5.0	..	20.4	17.7	38.2	22
23	Mianwali	190,021	168,184	358,205	8,029	6,786	14,815	22.4	18.9	41.4	118.3	8.5	..	24.4	21.8	46.2	23
	MULTAN DIVISION.																
24	Montgomery	393,372	320,414	713,786	18,291	15,605	33,896	25.6	21.9	47.5	117.2	15.9	..	24.9	21.3	46.2	24
25	Lyallpur ..	522,707	413,235	935,942	25,200	23,174	48,374	26.9	24.8	51.7	108.7	22.5	..	26.5	24.2	50.7	25
26	Jhang ..	305,483	265,076	570,559	11,622	10,309	21,931	20.4	18.1	38.4	112.7	9.0	..	23.5	20.9	44.5	26
27	Multan ..	484,581	399,593	884,174	18,748	15,968	34,716	21.2	18.1	39.3	117.4	8.7	..	23.9	20.5	44.4	27
28	Muzaffargarh	308,605	259,873	568,478	7,349	6,174	13,523	12.9	10.9	23.8	119.0	..	5.2	19.2	16.1	35.3	28
29	D. G. Khan	257,386	211,666	469,052	7,101	6,068	13,169	15.1	12.9	28.1	117.0	0.3	..	19.1	16.1	35.2	29
Total ..		11,204,834	9,312,772	20,517,606	469,771	417,750	887,521	22.9	20.4	43.3	112.5	13.6	..	22.7	20.3	43.0	

*Excluding population of military cantonments.

STATEMENT OF BIRTHS AND DEATHS REGISTERED IN EACH DISTRICT

Number.	2	3	4	5			6		7		
				POPULATION (CENSUS 1921).			BIRTHS.		NUMBER OF DEATHS REGISTERED		
1	DISTRICT.	Area in square miles.	Average population per square mile.	Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar	5,213	157	435,562	381,248	816,810	35,625	43.6	12,141	10,672	22,81
2	Rohtak	2,919	265	417,379	354,893	772,272	38,076	49.3	12,739	11,135	23,87
3	Gurgaon	2,263	301	367,800	314,203	682,003	32,424	47.5	14,294	13,050	27,34
4	Karnal	3,125	265	453,637	375,089	828,726	29,863	36.0	12,445	11,724	24,16
5	Ambala	1,882	341	360,967	280,942	641,909	28,510	44.4	9,941	8,900	18,84
6	Simla	101	405	27,599	13,338	40,937	1,103	26.9	507	408	91
	JULLUNDUR DIVISION.										
7	Kangra	9,978	77	393,121	371,626	764,747	29,048	38.0	10,928	10,499	21,42
8	Hoshiarpur	2,247	413	498,662	428,757	927,419	40,837	44.0	14,905	13,016	27,92
9	Jullundur	1,431	568	450,045	363,480	813,525	38,055	46.8	12,229	11,325	23,55
10	Ludhiana	1,452	391	318,845	248,777	567,622	26,823	47.3	9,299	8,115	17,41
11	Ferozepore	4,286	252	598,760	480,547	1,079,307	44,963	41.7	16,731	14,214	30,94
	LAHORE DIVISION.										
12	Lahore	2,691	415	636,596	480,134	1,116,730	50,133	44.9	17,131	14,295	31,42
13	Amritsar	1,593	583	518,500	409,898	928,398	48,036	51.7	15,305	13,548	28,85
14	Gurdaspur	1,889	449	467,576	380,238	847,814	44,123	52.0	13,714	12,121	25,83
15	Sialkot	1,206	721	472,231	396,703	868,934	43,769	50.4	12,747	11,066	23,81
16	Gujranwala	2,309	270	348,695	274,886	623,581	29,239	46.9	11,363	9,656	21,01
17	Sheikhupura	3,198	197	351,259	277,163	628,422	29,707	47.3	9,150	7,772	16,92
	RAWALPINDI DIVISION.										
18	Gujrat	2,563	322	438,550	385,496	824,046	34,053	41.3	11,945	10,141	22,08
19	Shahpur	4,476	161	392,086	327,832	719,918	26,370	36.6	11,703	10,233	21,93
20	Jhelum	2,773	172	240,464	235,104	475,568	18,422	38.7	7,237	6,476	13,71
21	Rawalpindi	2,023	267	292,317	248,376	540,693	21,041	38.9	8,017	7,015	15,03
22	Attock	4,117	123	262,028	246,001	508,029	16,877	33.2	7,372	6,457	13,82
23	Mianwali	5,395	66	190,021	168,184	358,205	14,815	41.4	6,287	5,502	11,78
	MULTAN DIVISION.										
24	Montgomery	4,623	154	393,372	320,414	713,786	33,896	47.5	12,054	10,520	22,574
25	Lyallpur	2,759	339	522,707	413,235	935,942	48,374	51.7	13,947	13,341	27,28
26	Jhang	3,452	168	305,483	265,076	570,559	21,931	38.4	8,914	7,847	16,76
27	Multan	5,939	149	484,581	399,593	884,174	34,716	39.3	14,511	12,502	27,013
28	Muzaffargarh	6,052	94	308,605	259,873	568,478	13,523	23.8	8,960	7,502	16,46
29	Dera Ghazi Khan	5,325	88	257,386	211,666	469,052	13,169	28.1	7,238	5,776	13,014
	Total	97,280	211	11,204,834	9,312,772	20,517,606	887,521	43.8	323,754	284,828	608,582

NOTE.—Those born dead are not included.

8 Number of deaths of males to every 100 deaths of females,	9 DEATHS PER 1,000 OF POPULATION FROM												10			11	
	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Males.	Females.	Total.	Males.	Females.	Total.	Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
113.8	0.1	0.5	..	17.7	0.4	1.3	0.1	7.8	27.9	28.0	27.9	31.7	33.5	32.5	1		
114.4	0.1	0.4	0.002	22.0	0.5	2.4	0.1	5.6	30.5	31.4	30.9	36.2	37.5	36.8	2		
109.5	0.02	0.5	..	25.5	0.7	2.5	0.5	10.4	38.9	41.5	40.1	37.2	39.7	38.4	3		
106.1	0.01	0.2	0.01	18.7	0.8	1.8	0.03	7.6	27.4	31.3	29.2	38.0	41.7	39.7	4		
111.7	0.03	0.4	..	11.1	0.3	11.7	..	5.8	27.5	31.7	29.4	31.9	35.9	33.6	5		
125.4	0.02	0.2	..	3.8	1.9	6.8	0.3	9.4	18.4	30.6	22.4	17.3	27.8	20.8	6		
104.1	0.002	0.1	..	12.7	3.2	6.0	0.8	5.2	27.8	28.3	28.0	30.9	30.4	30.7	7		
114.5	0.2	0.7	0.1	22.4	0.6	2.0	0.2	3.9	29.9	30.4	30.1	30.2	31.7	30.9	8		
108.0	0.1	0.1	..	20.4	0.4	2.3	0.3	5.3	27.2	31.2	29.0	25.9	29.7	27.6	9		
114.6	0.001	0.4	..	17.1	0.3	2.1	0.04	10.8	29.2	32.6	30.7	27.9	33.1	30.1	10		
117.7	0.01	0.5	..	19.0	0.4	2.3	0.2	6.3	27.9	29.6	28.7	26.0	26.9	26.4	11		
119.8	0.2	0.4	..	16.7	0.7	2.8	0.3	7.0	26.9	29.8	28.1	26.6	30.8	28.4	12		
113.0	0.1	0.2	..	19.7	0.5	4.3	0.4	6.0	29.5	33.1	31.1	33.7	38.5	35.8	13		
113.1	0.01	0.2	0.3	18.9	0.7	1.7	0.3	8.4	29.3	31.9	30.5	32.5	35.8	34.0	14		
115.2	0.03	0.2	0.3	18.1	0.5	3.7	0.3	4.4	27.0	27.9	27.4	29.1	31.4	30.1	15		
117.7	0.1	0.2	..	27.5	0.2	1.3	0.4	4.0	32.6	35.1	33.7	29.4	32.0	30.6	16		
117.7	0.01	0.1	..	22.0	0.1	0.5	0.3	3.9	26.1	28.0	26.9	23.6	25.2	24.3	17		
117.8	0.02	0.4	..	19.4	0.2	2.1	0.3	4.5	27.2	26.3	26.8	23.6	23.8	23.7	18		
114.4	0.02	0.1	..	23.2	0.5	2.8	0.4	3.5	29.9	31.2	30.5	25.7	27.4	26.5	19		
111.8	0.01	0.3	..	21.5	0.3	2.2	0.5	4.1	30.1	27.6	28.8	26.9	25.0	26.0	20		
114.3	0.1	0.1	..	18.6	3.1	3.1	0.5	2.3	27.4	28.2	27.8	24.1	26.1	25.0	21		
114.2	0.1	0.1	..	23.0	0.1	1.4	0.5	2.2	28.1	26.3	27.2	26.0	24.6	25.3	22		
114.3	0.4	0.04	..	28.0	0.2	1.1	0.2	3.1	33.1	32.7	32.9	29.8	30.3	30.0	23		
114.6	0.01	0.3	..	25.9	0.2	0.9	0.5	3.9	30.6	32.8	31.6	25.0	26.2	25.5	24		
104.5	0.04	0.1	..	21.8	0.3	1.1	0.3	5.7	26.7	32.3	29.2	23.6	26.9	25.1	25		
113.6	0.002	0.03	..	21.0	0.3	2.3	0.4	5.2	29.2	29.6	29.4	25.8	26.1	26.0	26		
116.1	0.03	0.2	..	24.2	0.4	2.0	0.5	3.3	30.0	31.3	30.6	25.9	27.4	26.6	27		
119.4	..	0.01	..	27.0	0.2	0.7	0.2	0.9	29.0	28.9	29.0	25.9	26.3	26.1	28		
125.3	0.01	0.03	..	24.5	0.4	0.7	0.2	1.8	28.1	27.3	27.8	23.5	23.5	23.5	29		
113.7	0.1	0.3	0.03	20.6	0.6	2.5	0.3	5.3	28.9	30.6	29.7	28.6	30.6	29.5			

in this or any other statement.

ANNUAL FORM No. III.

DEATHS REGISTERED IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

1	2	3												4	5
Number.	DISTRICTS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.	Number.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AMBALA DIVISION.															
1	Hissar ..	2,175	1,791	2,001	1,662	1,665	2,222	1,732	1,701	2,227	1,963	1,878	1,796	22,813	1
2	Rohtak ..	2,373	1,624	1,603	2,086	2,543	2,228	1,494	1,808	2,129	2,076	2,084	1,826	23,874	2
3	Gurgaon ..	2,239	1,626	1,738	2,195	2,462	2,299	1,637	1,869	2,933	3,581	2,677	2,088	27,344	3
4	Karnal ..	2,040	1,366	1,345	1,658	2,320	2,371	1,486	1,540	1,930	2,805	2,719	2,589	24,169	4
5	Ambala ..	1,399	1,118	1,077	1,277	1,685	1,813	1,301	1,426	1,899	2,102	1,926	1,818	18,841	5
6	Simla ..	81	57	46	57	100	100	68	94	106	78	73	55	915	6
JULLUNDUR DIVISION.															
7	Kangra ..	1,959	1,577	1,496	1,636	2,121	1,870	1,534	1,636	2,076	1,896	1,787	1,839	21,427	7
8	Hoshiarpur ..	2,140	1,603	1,723	2,086	2,594	2,311	1,889	2,428	3,080	2,901	2,467	2,699	27,921	8
9	Jullundur ..	1,749	1,534	1,566	1,730	2,280	2,041	1,852	2,238	2,173	2,114	2,112	2,165	23,554	9
10	Ludhiana ..	1,648	1,201	1,071	1,323	1,757	1,381	1,281	1,361	1,542	1,674	1,631	1,544	17,414	10
11	Ferozepore ..	2,551	2,104	2,248	2,275	2,620	2,302	2,038	2,254	3,028	3,042	3,165	3,318	30,945	11
LAHORE DIVISION.															
12	Lahore ..	2,847	2,057	2,066	2,237	3,014	2,702	2,172	2,827	2,995	2,859	2,708	2,942	31,426	12
13	Amritsar ..	2,511	1,861	1,720	1,905	2,818	2,409	2,144	2,810	2,787	2,709	2,625	2,554	28,853	13
14	Gurdaspur ..	2,204	1,563	1,519	1,791	2,421	2,034	1,658	1,985	2,626	2,937	2,641	2,456	25,835	14
15	Sialkot ..	2,150	1,618	1,666	1,634	2,618	1,988	1,544	1,886	2,140	2,220	2,219	2,130	23,813	15
16	Gujranwala ..	2,469	1,651	1,373	1,162	1,968	1,718	1,303	1,508	1,879	1,826	2,105	2,057	21,019	16
17	Sheikhupura ..	1,607	1,087	1,085	1,099	1,746	1,514	1,166	1,331	1,540	1,548	1,573	1,626	16,922	17
RAWALPINDI DIVISION.															
18	Gujrat ..	2,573	2,020	1,863	1,681	1,891	1,847	1,556	1,410	1,579	1,758	1,807	2,101	22,086	18
19	Shahpur ..	3,480	2,261	1,764	1,545	1,689	1,682	1,316	1,296	1,335	1,483	1,913	2,172	21,936	19
20	Jhelum ..	1,739	1,492	1,241	930	1,067	956	853	809	997	1,074	1,195	1,360	13,713	20
21	Rawalpindi ..	2,075	1,553	1,231	1,063	1,190	1,063	894	937	1,033	1,143	1,264	1,586	15,032	21
22	Attock ..	2,040	1,688	1,229	929	837	901	895	781	814	940	1,237	1,538	13,829	22
23	Mianwali ..	1,651	1,179	996	824	809	796	661	684	910	933	1,119	1,227	11,789	23
MULTAN DIVISION.															
24	Montgomery ..	2,320	1,648	1,582	1,619	1,885	1,641	1,201	1,454	1,855	2,248	2,553	2,568	22,574	24
25	Lyallpur ..	2,026	1,739	1,721	2,000	3,359	2,601	1,962	2,374	2,454	2,314	2,468	2,270	27,288	25
26	Jhang ..	2,575	1,518	1,264	1,149	1,258	1,261	1,010	1,009	1,043	1,227	1,567	1,880	16,761	26
27	Multan ..	3,684	2,786	2,302	1,864	2,257	1,873	1,721	1,465	1,604	2,117	2,474	2,866	27,013	27
28	Muzaffargarh ..	2,643	1,962	1,349	969	1,242	1,060	860	828	978	1,348	1,527	1,696	16,462	28
29	Dera Ghazi Khan	2,013	1,609	1,482	983	872	788	724	565	767	887	1,096	1,228	13,014	29
Total for the Province.		62,961	46,893	43,367	43,369	55,088	49,772	39,952	44,314	52,459	55,803	56,610	57,994	608,582	
Ratio of deaths per 1,000 in each month.		3.07	2.29	2.11	2.11	2.68	2.43	1.95	2.16	2.56	2.72	2.76	2.83	29.66	

ANNUAL FORM No. IV.

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS
IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1930.

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE PERIODS

UNDER ONE YEAR.

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

1	2	4													
Number.	DISTRICTS.	UNDER ONE YEAR—concl'd.													
		OVER SIX MONTHS AND UNDER TWELVE MONTHS.								TOTAL UNDER ONE YEAR.					
		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.	
1	2	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	
		29	30	31	32	33	34	35	36	37	38	39	40	41	42
1	Hissar ..	290	294	700	600	..	..	..	..	842	778	1,800	1,700	..	..
2	Rohtak ..	109	70	917	856	..	..	..	..	391	375	3,114	2,498	..	..
3	Gurgaon ..	250	203	569	430	..	..	..	..	994	887	2,415	2,071	..	..
4	Karnal ..	500	300	559	585	..	..	..	..	1,200	1,050	1,613	1,432	..	..
5	Ambala ..	199	183	683	613	..	..	..	..	694	631	2,238	1,964	..	..
6	Simla ..	6	3	36	20	..	..	1	..	21	9	142	115	1	2
7	Kangra ..	141	85	396	515	..	..	..	..	379	253	2,482	2,730	..	..
8	Hoshiarpur ..	436	409	920	850	3	..	..	..	1,373	1,236	2,837	2,349	12	3
9	Jullundur ..	460	389	654	558	..	..	..	..	1,739	1,488	2,262	2,183	..	..
10	Ludhiana ..	411	401	540	505	4	..	10	..	1,538	930	1,791	2,009	9	3
11	Ferozepore ..	794	604	805	656	4	2	13	15	2,403	2,027	2,537	2,147	7	3
12	Lahore ..	959	634	431	413	28	20	17	23	3,159	2,203	1,641	1,444	57	52
13	Amritsar ..	490	412	547	448	9	11	27	22	2,261	1,801	2,504	1,944	45	52
14	Gurdaspur ..	679	616	662	598	21	47	..	2	2,223	1,853	2,085	1,741	152	124
15	Sialkot ..	636	495	349	273	70	56	..	..	2,304	1,826	1,260	1,004	251	203
16	Gujranwala ..	777	616	117	115	41	28	2	1	2,302	1,867	438	372	150	94
17	Sheikhupura ..	636	492	195	166	48	40	25	12	1,763	1,392	765	586	210	180
18	Gujrat ..	769	724	32	25	1	2	1	1	2,363	2,091	99	88	3	5
19	Shahpur ..	622	550	72	99	13	11	7	6	2,359	1,861	339	363	49	35
20	Jhelum ..	344	298	45	34	..	..	..	..	1,497	1,324	131	99	..	..
21	Rawalpindi ..	588	480	64	64	1	..	..	..	1,806	1,402	232	230	8	5
22	Attock ..	228	188	27	31	..	..	1	..	1,249	1,035	78	90	..	..
23	Mianwali ..	352	349	44	34	..	..	..	..	1,286	1,081	181	128	..	..
24	Montgomery ..	642	526	204	246	5	4	11	10	2,677	2,177	990	880	27	25
25	Lyallpur ..	420	415	420	398	44	36	..	..	2,370	2,212	1,758	1,563	255	264
26	Jhang ..	446	445	53	58	..	..	2	..	2,378	2,005	195	180	..	..
27	Multan ..	900	847	144	216	6	9	2	3	2,815	2,693	792	672	33	28
28	Muzaffargarh ..	614	544	83	100	1	..	..	..	1,994	1,811	419	393	1	..
29	Dera Ghazi Khan ..	364	293	62	53	..	..	3	2	1,351	1,047	264	228	..	..
	Total ..	14,062	11,865	10,330	9,559	299	266	122	97	49,731	41,345	37,402	33,203	1,270	1,078
Population according to Census of 1921.		Not available.								240,139	232,641	176,259	168,581	7,514	7,241
Ratio per 1,000 living for the Province.									207.09 177.72 212.20 196.96 169.02 148.87						

No. IV—CONTINUED.

PERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1930.

		5								6				1
		ONE YEAR AND UNDER FIVE YEARS.								FIVE YEARS AND UNDER TEN YEARS.				
Other classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Number.
43	44	45	46	47	48	49	50	51	52	53	54	55	56	1
..	..	370	496	904	700	..	..	..	..	370	200	301	362	1
..	..	258	243	1,395	1,166	..	..	..	..	183	112	712	659	2
..	..	977	941	1,973	1,823	2	..	..	..	125	91	268	192	3
..	..	700	240	714	1,093	..	..	..	..	650	302	633	912	4
..	..	501	497	1,433	1,323	..	..	..	..	146	124	213	144	5
1	..	6	18	42	38	1	..	..	..	2	2	9	6	6
..	..	59	31	641	625	..	..	..	..	45	49	589	574	7
..	..	897	812	1,859	1,764	3	6	..	..	215	241	553	467	8
..	..	1,245	1,240	1,614	1,505	..	..	..	..	222	212	253	228	9
40	8	913	613	868	909	5	..	..	10	247	213	294	300	10
38	40	1,272	1,145	1,762	1,501	2	..	21	18	457	376	548	386	11
45	47	2,800	2,487	1,230	926	60	47	40	30	587	511	205	198	12
109	120	1,417	1,305	1,534	1,377	31	26	74	62	280	260	303	292	13
..	2	1,226	1,083	1,117	1,229	126	115	1	..	363	313	268	310	14
..	..	1,181	999	545	507	119	104	..	..	259	263	145	147	15
5	4	2,248	2,060	402	398	147	100	2	1	461	420	80	97	16
70	30	1,628	1,665	832	611	141	101	30	15	332	308	90	70	17
4	2	2,630	2,180	40	79	4	6	2	1	813	721	56	80	18
38	27	2,008	1,978	261	224	26	23	7	5	540	581	74	63	19
..	..	1,233	1,186	105	88	1	..	..	..	447	442	30	33	20
..	1	1,189	1,025	128	123	2	2	..	..	622	518	76	91	21
1	..	1,204	1,131	40	32	..	..	..	..	490	397	20	27	22
..	.	563	469	32	34	..	..	..	..	364	365	56	37	23
72	69	1,968	1,758	763	768	21	22	11	8	547	539	178	151	24
..	..	1,439	1,519	1,382	1,092	130	112	..	..	659	647	452	399	25
..	..	1,620	1,440	95	105	1	..	..	1	460	127	102	425	26
10	9	1,605	1,090	244	253	8	7	3	2	983	716	168	156	27
..	..	1,481	1,173	196	161	..	1	..	..	591	515	98	91	28
15	3	1,071	960	163	167	..	..	5	1	351	281	38	53	29
448	362	35,709	31,784	22,314	20,621	830	672	196	154	11,811	9,846	6,812	6,950	
52	20	587,475	566,315	430,242	408,415	18,176	17,236	167	98	950,073	831,383	683,426	592,470	
?	?	60.78	56.12	51.86	50.49	45.66	38.99	?	?	12.43	11.84	9.97	11.73	

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

Number.	Districts.	5				6				7			
		FIVE YEARS AND UNDER TEN YEARS—CONCLD.				TEN YEARS AND UNDER FIFTEEN YEARS.							
		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.	
1	2	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	57	58	59	60	61	62	63	64	65	66	67	68
1	Hissar ..	..	..	..	..	328	119	200	300	..	..	..	..
2	Rohtak ..	1	..	..	..	192	114	547	557	..	..	..	..
3	Gurgaon ..	..	..	..	..	180	154	435	334	..	..	..	..
4	Karnal ..	..	..	..	..	500	250	779	966	..	..	..	..
5	Ambala ..	..	..	..	..	91	79	149	129	..	..	..	..
6	Simla ..	2	3	..	..	3	4	7	6	..	1	..	..
7	Kangra ..	..	..	..	..	56	56	560	626	..	..	..	..
8	Hoshiarpur ..	3	..	..	..	120	149	346	226	1	1	..	..
9	Jullundur ..	..	..	..	..	116	109	135	174	..	..	..	..
10	Ludhiana ..	..	..	5	..	191	101	194	246	2	..	5	..
11	Ferozepore ..	..	1	25	21	264	248	350	270	3	1	27	24
12	Lahore ..	50	41	31	25	299	355	179	159	44	43	28	16
13	Amritsar ..	7	4	20	19	232	273	245	290	3	1	9	7
14	Gurdaspur ..	30	12	..	..	262	255	206	251	15	6	..	..
15	Sialkot ..	29	30	..	..	247	235	137	131	28	26	..	..
16	Gujranwala ..	47	4	1	..	426	419	125	96	50	42	..	1
17	Sheikhupura ..	40	33	8	5	154	162	55	51	35	26	10	6
18	Gujrat ..	3	1	1	1	530	474	77	92	2	..	1	..
19	Shahpur ..	5	2	2	4	255	307	62	56	4	5	3	2
20	Jhelum ..	..	..	..	..	237	165	23	26	..	..	..	..
21	Rawalpindi ..	..	..	..	..	411	326	49	57	..	..	..	..
22	Attock ..	..	..	..	1	234	208	25	28	..	..	..	..
23	Mianwali ..	..	..	..	..	416	413	41	44	..	..	..	..
24	Montgomery ..	16	7	14	4	338	266	87	75	4	7	8	12
25	Lyallpur ..	46	33	..	..	568	507	231	246	31	23	..	..
26	Jhang ..	..	..	..	..	276	275	89	63	..	..	1	..
27	Multan ..	9	6	4	2	783	617	182	195	10	8	3	2
28	Muzaffargarh ..	2	..	..	..	617	449	84	73	..	1	..	..
29	Dera Ghazi Khan ..	..	..	..	1	197	129	23	11	..	..	..	..
Total ..		290	218	111	83	8,523	7,218	5,622	5,778	232	191	95	70
Population according to Census of 1921.		28,011	24,222	158	128	770,738	584,428	591,587	438,614	22,692	16,848	177	136
Ratio per 1,000 living for the Province.		10.35	9.00	702.53	648.44	11.06	12.35	9.50	13.17	10.22	11.34	536.72	514.71

No. IV—CONTINUED.

PERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1930.

8

9

TWENTY YEARS AND UNDER
THIRTY YEARS.

FIFTEEN YEARS AND UNDER TWENTY YEARS.

<i>Muhammadans.</i>		<i>Hindus.</i>		<i>Indian Christians.</i>		<i>Other Classes.</i>		<i>Muhammadans.</i>		<i>Hindus.</i>		<i>Indian Christians.</i>		<i>Other Classes.</i>		Number.
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	1
250	150	93	206	..	..	..	..	263	190	200	303	..	..	..	..	1
169	123	542	575	1	..	..	..	197	144	591	675	..	1	..	..	2
216	171	478	507	..	..	..	..	500	520	1,162	1,062	..	..	..	..	3
300	100	933	1,038	..	..	..	..	360	100	788	968	..	..	..	..	4
83	104	125	167	..	..	..	..	189	293	337	361	..	..	..	..	5
4	3	16	15	1	..	..	..	13	14	41	51	3	..	..	..	6
49	40	758	751	..	..	..	..	49	51	796	803	1	..	..	..	7
129	131	308	260	1	2	..	..	195	209	389	393	1	..	..	..	8
87	147	106	169	..	..	..	..	186	244	241	370	..	..	..	..	9
150	151	190	169	..	..	6	4	200	104	208	276	1	..	..	..	10
278	320	320	356	1	..	29	26	344	356	421	388	..	1	19	17	11
286	336	197	201	51	44	15	10	688	610	219	297	46	31	16	12	12
249	274	271	318	6	4	17	16	347	411	372	445	4	2	15	14	13
311	270	204	296	24	38	1	..	403	453	328	395	43	11	..	..	14
280	247	157	138	32	29	..	..	1,079	1,007	507	497	114	107	..	..	15
518	425	148	117	53	48	1	..	512	433	151	145	69	51	..	..	2
120	100	45	50	34	21	6	5	333	345	70	60	40	27	8	..	17
466	469	138	115	..	2	..	..	699	599	105	119	3	1	3	..	18
249	229	41	38	6	3	2	1	549	632	94	88	12	9	6	8	19
187	177	17	21	..	..	..	..	330	412	21	47	..	..	..	..	20
280	217	32	28	..	..	..	..	193	182	28	21	..	..	..	..	21
221	176	15	28	1	..	..	..	479	541	25	27	..	..	..	..	22
434	425	39	29	..	..	..	..	459	396	44	23	..	..	1	..	23
243	271	51	49	5	6	7	12	372	366	122	112	15	14	7	23	24
390	380	252	242	32	30	..	..	354	359	220	236	30	38	..	..	25
202	169	113	107	..	..	..	..	356	340	119	99	..	..	..	..	26
802	691	146	157	9	3	4	1	865	675	158	167	6	10	1	1	27
538	504	75	84	1	..	..	..	665	446	40	67	..	1	..	..	28
136	97	23	34	..	..	..	..	420	426	52	98	..	..	3	3	29
7,627	6,897	5,833	6,265	258	230	88	75	11,599	10,858	7,849	8,593	388	304	79	87	
506,702	405,557	436,767	317,417	16,312	11,736	182	133	943,910	833,320	812,778	645,951	33,066	23,019	374	357	
15.05	17.01	13.35	19.74	15.82	19.60	483.52	563.91	12.29	13.03	9.66	13.30	11.73	13.21	211.23	243.70	

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

1	2	10								11			
Number.	Districts.	THIRTY YEARS AND UNDER FORTY YEARS.								FORTY YEARS AND UNDER			
		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	85	86	87	88	89	90	91	92	93	94	95	96
1	Hissar ..	319	169	200	400	..	..	..	..	387	273	685	700
2	Rohtak ..	134	131	678	621	..	..	..	..	123	132	708	617
3	Gurgaon ..	332	365	721	717	..	..	..	..	333	305	764	668
4	Karnal ..	370	260	615	739	..	..	..	..	200	390	627	501
5	Ambala ..	169	157	370	337	1	..	..	..	227	155	408	282
6	Simla ..	5	5	33	22	2	1	..	..	4	3	38	15
7	Kangra ..	63	60	967	798	1	1	..	..	66	39	996	864
8	Hoshiarpur ..	211	198	377	360	3	2	..	..	270	219	537	375
9	Jullundur ..	202	192	201	267	1	..	..	..	217	145	275	199
10	Ludhiana ..	115	144	261	200	1	..	..	..	200	154	204	201
11	Ferozepore ..	418	341	450	389	1	..	24	21	596	492	620	552
12	Lahore ..	483	504	291	215	37	31	14	12	647	512	207	149
13	Amritsar ..	382	376	405	402	9	7	28	21	428	345	504	457
14	Gurdaspur ..	392	384	336	311	52	19	..	..	356	297	398	272
15	Sialkot ..	955	873	375	328	95	86	..	..	702	604	391	335
16	Gujranwala ..	522	433	160	147	72	54	2	..	520	417	159	138
17	Sheikhupura ..	279	276	61	71	36	32	9	6	286	202	35	70
18	Gujrat ..	552	475	176	163	6	3	1	2	537	446	178	127
19	Shahpur ..	646	627	89	58	14	12	6	5	668	528	77	66
20	Jhelum ..	456	411	26	38	..	..	..	..	459	348	29	25
21	Rawalpindi ..	256	277	63	56	..	1	..	..	479	469	77	68
22	Attock ..	554	575	26	19	..	..	..	..	624	508	26	26
23	Mianwali ..	435	443	57	33	..	..	..	..	465	410	51	22
24	Montgomery ..	368	402	121	151	16	22	10	11	421	369	179	110
25	Lyallpur ..	289	365	224	201	45	48	..	..	280	344	246	233
26	Jhang ..	297	385	120	88	..	..	1	..	346	339	129	116
27	Multan ..	864	771	131	154	9	7	3	4	860	738	146	178
28	Muzaffargarh ..	555	458	53	81	..	..	..	..	470	370	91	47
29	Dera Ghazi Khan ..	537	511	71	69	..	..	3	2	601	413	90	62
		11,160	10,568	7,658	7,435	401	326	101	84	11,772	9,966	8,875	7,475
Population according to Census of 1921.		794,114	666,352	643,616	511,228	22,481	17,177	361	265	568,025	486,332	474,779	386,058
Ratio per 1,000 living for the Province.		14.05	15.86	11.90	14.54	17.84	18.98	279.78	316.98	20.72	20.49	18.69	19.36

o. IV—CONTINUED.

PERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1930.

																12					13
FIFTY YEARS.								FIFTY YEARS AND UNDER SIXTY YEARS.								SIXTY YEARS AND UPWARDS.					
Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Muhammadans.		Hindus.		Number.					
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.						
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	1					
..	..	..	..	400	240	1,068	1,000	..	..	..	..	561	500	2,600	1,886	1
..	..	..	..	137	123	766	688	..	..	..	..	163	198	1,737	1,383	2
..	..	..	..	158	148	378	355	..	..	..	..	568	514	1,315	1,225	3
..	..	..	..	270	280	413	413	..	..	..	..	260	290	520	400	4
1	..	..	..	197	141	382	261	1	1	..	..	506	491	1,479	1,259	5
1	..	..	..	7	4	20	12	1	..	..	..	22	8	59	50	6
..	..	..	..	80	38	1,021	967	..	..	1	..	60	87	1,209	1,056	7
3	..	..	..	345	312	743	639	3	2	..	..	674	481	2,496	2,179	8
..	..	..	..	253	168	336	265	..	1	..	..	1,137	902	1,401	1,117	9
..	..	..	..	212	151	220	218	..	..	..	..	649	449	570	544	10
2	2	29	26	759	592	767	615	..	..	25	22	940	709	943	754	11			
44	29	18	13	613	413	220	242	46	42	28	20	1,662	1,129	722	755	12					
19	16	31	29	473	399	531	469	16	14	39	36	967	786	1,050	818	13					
61	25	..	..	394	402	408	214	57	18	..	..	883	626	863	699	14	
79	67	..	..	500	427	279	237	59	48	..	..	384	335	212	187	15	
65	52	..	1	533	427	170	129	79	49	2	..	522	404	156	126	16					
34	36	11	7	284	137	49	68	29	31	9	8	908	727	195	161	17					
2	4	2	1	602	457	169	93	3	2	..	3	1,530	1,129	143	106	18					
7	4	5	4	766	598	91	76	13	5	3	5	2,075	1,465	213	197	19					
..	..	..	..	554	400	47	34	1	..	..	..	1,269	1,070	137	130	20
1	2	..	..	679	634	93	83	..	1	..	..	1,190	1,077	120	119	21	
..	..	..	..	619	442	25	25	..	..	..	..	1,396	1,092	20	49	22
..	..	..	..	467	416	59	31	..	..	..	..	765	668	72	35	23
32	15	8	3	461	391	189	118	22	18	2	1	1,174	887	442	347	24					
42	35	..	..	334	349	217	249	36	33	..	..	1,019	982	559	540	25	
..	..	..	1	310	313	181	120	..	..	..	..	1,305	919	218	230	26
8	8	5	2	928	750	252	280	5	6	1	2	1,382	1,215	258	212	27					
..	..	..	..	263	249	191	104	..	..	..	..	271	272	264	151	28
..	..	1	..	543	361	102	51	..	..	2	1	1,029	647	147	118	29			
401	295	110	87	12,141	9,762	9,387	8,056	371	271	112	98	25,271	20,059	20,120	16,833						
15,069	12,104	264	261	397,365	320,366	339,811	261,590	9,704	7,704	160	156	437,197	321,889	334,927	253,383						
26.61	24.37	416.67	333.33	30.55	30.47	27.62	30.80	38.23	35.18	700.00	628.21	57.80	62.32	60.07	66.43						

DEATHS REGISTERED BY SEXES AND CLASSES ACCORDING TO SPECIFIED AGE

1	2	13				14					
Number.	DISTRICTS.	SIXTY YEARS AND UPWARDS— CONCLUDED.				TOTAL.					
		Indian Christians.		Other Classes.		Muhammadans.		Hindus.			
1	2	113	114	115	116	117	118	119	120	121	122
1	Hissar	..	..	..	..	4,080	3,109	8,061	7,563	..	..
2	Rohtak	..	..	..	..	1,947	1,695	10,790	9,439	2	1
3	Gurgaon	..	..	..	..	4,383	4,096	9,909	8,954	2	..
4	Karnal	..	..	..	..	4,810	3,262	7,635	8,462	..	..
5	Ambala	..	1	..	..	2,803	2,672	7,134	6,227	4	1
6	Simla	..	..	1	..	87	70	407	330	12	8
7	Kangra	..	..	..	..	906	704	10,019	9,794	2	1
8	Hoshiarpur	..	1	..	..	4,429	3,988	10,445	9,012	31	16
9	Jullundur	..	..	..	..	5,404	4,847	6,824	6,477	1	1
10	Ludhiana	..	..	2	10	4,415	3,010	4,800	5,072	18	5
11	Ferzepore	..	1	1	28	7,731	6,606	8,718	7,358	17	9
12	Lahore	..	84	70	42	11,224	9,060	5,111	4,586	519	430
13	Amritsar	..	23	17	45	7,036	6,230	7,719	6,812	163	143
14	Gurdaspur	..	125	95	1	6,813	5,936	6,213	5,718	685	463
15	Sialkot	..	42	39	..	7,891	6,816	4,008	3,511	848	739
16	Gujranwala	..	64	46	1	8,564	7,305	1,989	1,765	796	576
17	Sheikhupura	..	95	68	11	6,087	5,314	2,197	1,798	694	560
18	Gujrat	..	2	3	..	10,722	9,041	1,181	1,062	28	27
19	Shahpur	..	28	31	11	8,806	10,115	1,341	1,229	164	129
20	Jhelum	..	..	..	..	6,669	5,935	566	541	2	..
21	Rawalpindi	..	3	..	..	7,105	6,127	898	876	14	11
22	Attock	..	..	..	..	7,070	6,105	300	351	1	..
23	Mianwali	..	..	..	..	5,654	5,086	632	416	..	..
24	Montgomery	..	64	53	2	8,569	7,426	3,122	2,761	222	189
25	Lyallpur	..	55	59	2	7,702	7,664	5,541	5,001	702	675
26	Jhang	..	..	..	..	7,548	6,612	1,361	1,233	1	..
27	Multan	..	12	11	4	11,887	9,956	2,477	2,424	109	94
28	Muzaffargarh	..	..	..	..	7,445	6,247	1,511	1,252	4	3
29	Dera Ghazi Khan	..	..	..	..	6,236	4,872	973	891	..	..
Total		600	496	157	135	185,332	158,597	131,882	120,915	5,041	4,081
Population according to Censes of 1921.		11,268	7,482	147	146	..	..	..	..	..	..
Ratio per 1,000 living for the Province.		53.25	66.29	?	924.66	..	..	..	..	..	..

No. IV—CONCLUDED.

PERIODS IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1930.

15

RATIO OF DEATHS PER 1,000 OF POPULATION.

Other Classes.		Muhammadans.		Hindus.		Indian Christians.		Other Classes.		Total.		Number.
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	1
123	124	125	126	127	128	129	130	131	132	133	134	
..	..	36.14	30.17	25.02	27.23	..	..	..	..	27.87	27.99	1
..	..	29.73	28.46	31.13	32.49	0.39	0.21	..	..	30.52	31.38	2
..	..	37.81	40.58	39.45	42.11	3.28	..	..	..	38.86	41.53	3
..	..	37.90	30.01	23.50	31.96	..	..	..	..	27.43	31.26	4
..	..	26.41	30.72	28.28	32.39	2.41	0.70	..	..	27.54	31.68	5
1	..	18.87	56.27	18.99	32.34	24.64	24.32	0.94	..	18.37	30.59	6
1	..	43.09	40.91	27.05	27.76	14.08	7.04	0.64	..	27.80	28.25	7
..	..	28.54	29.73	30.59	30.76	15.64	9.66	..	..	29.89	30.36	8
..	..	27.43	29.21	27.21	33.04	0.54	0.69	..	..	27.17	31.16	9
66	28	41.35	34.93	22.73	31.34	21.10	6.86	?	933.33	29.16	32.62	10
265	241	29.80	30.58	25.93	28.00	8.36	5.90	251.66	..	27.94	29.58	11
277	219	31.43	31.78	20.15	26.22	23.11	22.70	80.78	181.89	26.91	29.77	12
387	363	30.23	32.68	27.69	31.92	24.73	25.37	?	?	29.52	33.05	13
3	4	29.44	31.12	28.48	32.73	38.25	31.64	42.86	30.77	29.33	31.88	14
..	..	27.32	27.67	26.12	27.92	29.58	30.17	..	..	26.99	27.90	15
14	10	34.78	37.10	22.80	26.80	52.57	47.80	241.38	142.86	32.59	35.13	16
172	100	27.15	29.34	19.95	21.79	41.66	41.92	666.67	561.80	26.05	28.04	17
14	11	28.37	27.25	19.90	20.17	22.54	25.81	400.00	220.00	27.24	26.31	18
83	69	31.24	32.33	21.60	24.35	26.41	25.92	?	?	29.85	31.21	19
..	..	31.33	28.34	20.65	21.19	10.05	..	..	..	30.10	27.55	20
..	1	29.47	28.40	19.72	28.23	8.43	11.85	..	1.49	27.43	28.24	21
1	1	29.58	27.19	13.19	16.39	8.70	..	5.29	37.04	28.13	26.25	22
1	..	34.78	34.77	23.28	19.08	..	..	6.10	..	33.09	32.71	23
141	144	30.49	32.01	29.30	32.96	38.70	41.09	?	?	30.64	32.83	24
2	1	24.93	30.16	29.02	35.59	30.75	36.29	39.22	21.28	26.68	32.28	25
4	2	29.42	30.22	27.98	26.75	4.02	..	666.67	400.00	29.18	29.60	26
38	28	29.97	29.97	29.35	37.14	46.56	47.02	32.18	205.88	29.95	31.29	27
..	..	27.74	27.77	37.82	35.97	55.56	44.12	..	..	29.03	28.87	28
29	13	27.50	26.38	31.81	33.01	..	..	?	?	28.12	27.29	29
1,499	1,235	30.15	30.40	27.05	30.60	30.50	29.93	89.25	183.32	28.89	30.58	
..	
..	

? Figures incorrect due to misclassification.

NOTE.—The population of Military Cantonments by different ages cannot be excluded as it is not shown separately in the census returns.

ANNUAL FORM No. V.

CANCELLED AND INCORPORATED IN ANNUAL FORM No. IV.

ANNUAL FORM No. VI.

DEATHS REGISTERED FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE DISTRICTS
(RURAL CIRCLES) OF THE PUNJAB DURING THE YEAR 1930.

DEATHS REGISTERED FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE DISTRICT

1	2	3	4				5	6	7	8	9	10		
Number.	RURAL CIRCLES.	Population according to Census of 1921.	BIRTHS.						Diseases.			Suicide.		
1	2	3	Males.	Females.	Total.	Birth rate per 1,000 of population.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	Males.	Females.
AMBALA DIVISION.														
1	Hissar	..	725,870	17,208	14,795	32,003	44·09	15	336	..	13,280	179	821	..
2	Rohtak	..	696,915	17,987	16,361	34,348	49·29	20	222	2	15,818	233	1,460	2
3	Gurgaon	..	625,926	15,703	13,998	29,701	47·45	11	263	..	16,448	393	1,442	14
4	Karnal	..	747,506	14,017	12,246	26,263	35·13	2	98	12	14,296	567	1,209	1
5	Ambala	..	578,883	13,522	12,140	25,662	44·33	11	216	..	6,326	122	7,133	..
6	Simla	..	14,788	182	176	358	24·21	..	..	..	123	24	84	..
JULLUNDUR DIVISION.														
7	Kangra	..	754,151	14,847	13,884	28,731	38·10	2	34	..	9,631	2,453	4,526	4
8	Hoshiarpur	..	855,109	19,920	17,982	37,902	44·32	137	585	57	19,835	394	1,590	4
9	Jullundur	..	708,601	16,947	15,785	32,732	46·19	43	63	..	15,117	126	1,099	7
10	Ludhiana	..	484,267	12,058	10,860	22,918	47·33	..	117	..	8,833	71	773	2
11	Ferozepore	..	982,160	21,634	18,996	40,630	41·37	2	474	..	19,203	290	1,899	9
LAHORE DIVISION.														
12	Lahore	..	766,738	18,634	16,357	31,991	45·64	39	321	..	14,797	112	969	12
13	Amritsar	..	743,126	20,137	18,133	38,270	51·59	43	122	..	15,307	283	1,735	5
14	Gurdaspur	..	773,416	20,973	19,256	40,229	52·01	6	116	262	14,802	459	1,227	4
15	Sialkot	..	755,553	19,976	17,907	37,883	50·14	6	158	209	14,370	273	2,419	1
16	Gujranwala	..	531,961	13,317	11,845	25,162	47·30	9	96	..	15,692	74	473	1
17	Sheikhupura	..	587,523	15,077	13,303	28,380	48·30	2	58	..	13,479	39	259	2
RAWALPINDI DIVISION.														
18	Gujrat	..	768,049	16,655	14,727	31,382	40·86	..	290	..	15,085	104	1,413	..
19	Shahpur	..	644,132	12,790	10,998	23,788	36·93	..	57	..	15,623	244	1,477	..
20	Jhelum	..	443,802	9,086	8,163	17,249	38·87	3	145	..	9,882	89	886	3
21	Rawalpindi	..	483,045	9,778	8,583	18,361	38·01	52	26	..	9,299	1,598	1,236	4
22	Attock	..	486,533	8,708	7,347	16,055	33·00	26	26	..	11,440	28	604	3
23	Mianwali	..	328,270	7,415	6,276	13,691	41·71	6	7	..	9,585	42	315	3
MULTAN DIVISION.														
24	Montgomery	..	674,976	17,502	14,897	32,399	48·00	4	223	..	17,921	75	505	8
25	Lyallpur	..	882,310	24,195	22,254	46,449	52·64	.39	39	..	19,557	274	796	9
26	Jhang	..	513,545	10,261	9,003	19,264	37·51	..	10	..	11,191	93	1,047	1
27	Multan	..	765,841	16,308	13,601	29,909	39·05	3	91	..	19,852	30	622	3
28	Muzaffargarh	..	536,715	6,787	5,663	12,450	23·20	..	2	..	14,491	79	276	1
29	Dera Ghazi Khan	..	417,609	6,052	5,089	11,141	26·68	..	8	..	10,265	74	172	4
	Total	..	18,277,320	417,676	370,625	788,301	43·13	481	4,203	542	391,548	8,822	38,467	107

No. VI-A (RURAL CIRCLES).

RURAL CIRCLES) OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14									15		
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.													
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	Number.	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
55	1	1	66	4,777	19,474	0·02	0·46	..	18·30	0·25	1·13	0·09	6·58	26·83	31·34	1	
61	9	3	80	3,494	21,329	0·03	0·32	0·003	22·70	0·33	2·09	0·11	5·01	30·60	36·58	2	
279	6	1	326	6,558	25,441	0·02	0·42	..	26·28	0·63	2·30	0·52	10·48	40·65	38·62	3	
19	2	1	26	5,402	21,612	0·002	0·13	0·02	19·12	0·76	1·62	0·03	7·23	28·91	39·21	4	
..	..	..	..	3,032	16,840	0·02	0·37	..	10·93	0·21	12·32	..	5·24	29·09	33·59	5
..	..	..	..	153	384	..	..	..	8·32	1·62	5·68	..	10·35	25·97	22·64	6
600	20	5	634	3,920	21,200	0·002	0·05	..	12·77	3·25	6·00	0·84	5·20	28·11	30·84	7	
101	20	8	136	3,357	26,091	0·16	0·68	0·07	23·20	0·46	1·86	0·16	3·93	30·51	31·43	8	
167	4	2	181	3,368	19,997	0·06	0·09	..	21·33	0·18	1·55	0·26	4·75	28·22	27·33	9	
16	2	..	20	5,009	14,823	..	0·24	..	18·24	0·15	1·60	0·04	10·34	30·61	30·12	10	
155	24	7	198	6,064	28,130	0·002	0·48	..	19·55	0·30	1·93	0·20	6·17	28·64	26·63	11	
136	36	3	191	4,357	20,786	0·05	0·42	..	19·30	0·15	1·26	0·25	5·68	27·11	27·20	12	
164	19	12	205	4,384	22,079	0·06	0·16	..	20·60	0·38	2·33	0·27	5·90	29·71	34·74	13	
163	19	8	199	6,534	23,605	0·01	0·15	0·34	19·14	0·59	1·59	0·26	8·45	30·52	34·51	14	
162	12	3	179	3,203	20,817	0·01	0·21	0·28	19·02	0·36	3·20	0·24	4·24	27·55	30·15	15	
152	55	3	211	1,850	18,405	0·02	0·18	..	29·50	0·14	0·89	0·40	3·48	34·60	30·81	16	
133	54	5	194	2,320	16,351	0·003	0·10	..	22·94	0·07	0·44	0·33	3·95	27·83	25·23	17	
179	15	3	198	3,311	20,401	..	0·38	..	19·64	0·14	1·84	0·26	4·31	26·56	23·59	18	
212	29	1	246	2,170	19,817	..	0·09	..	24·25	0·38	2·29	0·38	3·37	30·77	26·81	19	
169	26	1	199	1,800	13,004	0·01	0·33	..	22·27	0·20	2·00	0·45	4·06	29·30	25·91	20	
188	28	1	221	821	13,253	0·11	0·05	..	19·25	3·31	2·56	0·46	1·70	27·44	24·60	21	
192	13	..	211	1,022	13,357	0·05	0·05	..	23·51	0·06	1·24	0·43	2·10	27·45	25·44	22	
35	7	..	47	966	10,968	0·02	0·02	..	29·20	0·13	0·96	0·14	2·94	33·41	30·55	23	
246	48	2	306	2,596	21,630	0·01	0·33	..	26·55	0·11	0·75	0·45	3·85	32·05	25·65	24	
220	2	1	236	4,985	25,926	0·04	0·04	..	22·17	0·31	0·90	0·27	5·65	29·38	25·88	25	
178	35	5	220	2,521	15,082	..	0·02	..	21·79	0·18	2·04	0·43	4·91	29·37	25·79	26	
286	50	1	343	2,227	23,168	0·003	0·12	..	25·92	0·04	0·81	0·45	2·91	30·25	26·17	27	
68	22	1	92	418	15,358	..	0·003	..	27·00	0·15	0·51	0·17	0·78	28·61	25·99	28	
44	44	1	100	470	11,089	..	0·02	..	24·58	0·18	0·41	0·24	1·13	26·55	23·17	29	
4,380	602	79	5,265	91,089	540,417	0·03	0·23	0·03	21·42	0·48	2·10	0·29	4·98	29·57	29·40		

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED

1	2	3	4				5	6	7	8	9	10				
Number.	TOWNS.	Population according to Census of 1921.	BIRTHS.				Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Suicide.			
1	2	3	4	Males.	Females.	Total.	7	Birth rate per 1,000 of population.	8	9	10	11	12	13	14	15
HISsar DISTRICT.																
1	Hissar	..	21,415	417	380	797	37·22		53	23	..	335	15	69	..	..
2	Hansi	..	15,425	408	353	761	49·34		..	47	..	261	26	64	..	..
3	Bhiwani	..	33,270	695	676	1,371	41·21		1	18	..	386	85	63	..	..
4	Sirsa	..	16,241	295	232	527	32·45		..	16	..	157	34	45	..	..
5	Fatehbad	..	2,313	36	33	69	29·83		..	3	..	25	3	10	..	..
6	Budhlada	..	2,276	53	44	97	42·62		..	..	..	26	..	1	..	..
ROHTAK DISTRICT.																
7	Rohtak	..	25,240	698	557	1,255	49·72		20	19	..	365	38	140	..	..
8	Jhajjar	..	10,800	279	243	522	48·33		1	2	..	107	28	63	..	..
9	Beri	..	7,454	225	190	415	55·67		..	19	..	154	30	29	..	..
10	Gohana	..	5,107	112	90	202	39·55		1	3	..	71	5	29	..	..
11	Bahadurgarh	..	5,955	171	116	287	48·19		1	..	..	115	11	23	..	..
12	Sonepat	..	12,981	317	329	646	49·77		..	5	..	221	12	33	1	..
13	Mehm	..	7,820	223	178	401	51·28		..	..	..	143	5	54	..	..
GURGAON DISTRICT.																
14	Rewari	..	23,129	618	575	1,193	51·58		..	3	..	285	38	125	..	..
15	Palwal	..	9,352	257	266	523	55·92		..	11	..	191	20	37	..	..
16	Firozpur	..	4,542	112	117	229	50·42		..	..	..	130	25	18	..	..
17	Hodal	..	5,854	138	155	293	50·05		..	14	..	166	1	24	..	..
18	Ballabgarh	..	3,721	92	84	176	47·30		..	10	..	87	8	14	..	..
19	Faridabad	..	4,337	113	92	205	47·27		..	..	..	60	2	9	..	..
20	Hidiyatpur Chhaoni	..	5,142	63	41	104	20·23		..	18	..	20	5	30	..	..
KARNAL DISTRICT,																
21	Karnal	..	22,845	510	474	984	43·07		1	7	..	399	12	63	..	..
22	Kaithal	..	15,477	373	336	709	45·81		1	16	..	234	9	33	..	..
23	Panipat	..	27,343	657	630	1,287	47·07		..	43	..	342	54	132	..	..
24	Shahabad	..	11,329	254	236	490	43·25		..	..	..	137	7	46	..	..
25	Thanesar	..	4,226	75	55	130	30·76		1	3	..	95	..	12	..	..
AMBALA DISTRICT.																
26	Ambala	..	28,581	573	525	1,098	38·42		2	1	..	247	28	133	..	..
27	Jagadhri	..	11,544	349	272	621	53·79		7	1	..	361	24	58	..	..
28	Burya	..	3,574	84	73	157	43·93		..	..	..	46	4	25	..	..
29	Sadhuara	..	7,630	210	173	383	50·20		1	15	..	49	14	90	..	..
30	Rupar	..	7,606	194	182	376	49·43		..	..	..	70	5	36	..	..
31	Kharar	..	4,091	104	109	213	52·07		..	8	..	51	10	32	..	..

No. VI-B (TOWNS).

IN THE TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14										15	
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.													
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean ratio of previous five years.	Number.	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
..	379	874	2·47	1·07	..	15·64	0·70	3·22	..	17·70	40·81	42·67	1	
..	233	631	..	3·05	..	16·92	1·69	4·15	..	15·11	40·91	50·11	2	
..	802	1,355	0·03	0·54	..	11·60	2·55	1·89	..	24·11	40·73	46·00	3	
..	137	389	..	0·99	..	9·67	2·09	2·77	..	8·44	23·95	33·04	4	
..	13	54	..	1·20	..	10·81	1·30	4·32	..	5·62	23·35	34·67	5	
..	9	36	11·42	..	0·44	..	3·95	15·82	Not available	6	
1	1	..	2	237	821	0·79	0·75	..	14·46	1·51	5·55	0·08	9·39	32·53	30·24	7	
2	..	2	188	391	0·09	0·19	..	9·91	2·59	5·83	0·19	17·41	36·20	40·89	8		
1	..	1	132	365	..	2·55	..	20·66	4·02	3·89	0·13	17·71	48·97	38·96	9		
..	42	151	0·20	0·59	..	13·90	0·98	5·68	..	8·22	29·57	44·92	10		
..	53	203	0·17	..	..	19·31	1·85	3·86	..	8·90	34·09	49·74	11		
1	..	2	96	369	..	0·39	..	17·03	0·92	2·54	0·15	7·40	28·43	45·99	12		
2	..	2	41	245	..	..	..	18·30	0·64	6·91	0·26	5·24	31·33	36·39	13
2	..	1	3	194	648	..	0·13	..	12·32	1·64	5·40	0·13	8·39	28·02	33·42	14	
1	..	1	158	418	..	1·18	..	20·42	2·14	3·96	0·11	16·89	44·70	46·79	15		
1	1	..	2	48	223	..	..	28·62	5·50	3·96	0·44	10·57	49·10	48·75	16
1	..	1	64	270	..	2·39	..	28·36	0·17	4·10	0·17	10·23	46·12	44·58	17		
1	..	1	38	158	..	2·70	..	23·38	2·15	3·76	0·27	10·21	42·46	41·87	18		
..	17	88	..	..	..	13·83	0·46	2·08	..	3·92	20·29	27·44	19		
..	25	98	..	3·50	..	3·89	0·97	5·83	..	4·86	19·06	Not available	20		
..	216	698	0·04	0·31	..	17·47	0·53	2·76	..	9·46	30·55	43·00	21		
..	161	454	0·06	1·03	..	15·12	0·58	2·13	..	10·40	29·33	46·28	22		
2	..	2	379	952	..	1·57	..	12·51	1·97	4·83	0·07	13·86	34·82	50·16	23		
..	126	316	..	..	..	12·09	0·62	4·06	..	11·12	27·89	32·71	24		
..	26	137	0·24	0·71	..	22·48	..	2·84	..	6·15	32·42	27·73	25		
..	291	702	0·07	0·03	..	8·64	0·98	4·65	..	10·18	24·56	28·17	26		
..	116	567	0·61	0·09	..	31·27	2·08	5·02	..	10·05	49·12	48·44	27		
..	38	113	..	..	..	12·87	1·12	6·99	..	10·63	31·62	33·58	28		
..	99	268	0·13	1·97	..	6·42	1·83	11·80	..	12·98	35·12	34·47	29		
..	100	211	..	..	..	9·20	0·66	4·73	..	13·15	27·74	34·21	30		
..	39	140	..	1·96	..	12·47	2·44	7·82	..	9·53	34·22	Not available	31		

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED

1	2	3	4						5	6	7	8	9	10	
Number.	TOWNS.	Population according to Census of 1921.	BIRTHS.						Cholera.	Small-pox	Plague.	Fevers.	Dysentery and Diarrhae.	Respiratory diseases.	Suicide
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
SIMLA DISTRICT.															
32	Simla	26,149	386	359	745	28.49	1	9	..	32	49	194	2	..	
KANGRA DISTRICT.															
33	Kangra	3,581	60	68	128	35.74	..	..	..	46	5	21	..	..
34	Dharamsala	3,065	45	32	77	25.12	..	1	..	31	1	37	..	..
35	Palampur	529	10	7	17	32.14	..	..	..	5	1	10	..	..
36	Nurpur	3,421	53	42	95	27.77	..	1	..	18	5	28	..	..
HOSHIARPUR DISTRICT.															
37	Hoshiarpur	21,285	470	448	918	43.13	37	34	..	254	56	103	..	..
38	Khanpur	2,701	61	54	115	42.58	20	..	..	27	2	6	..	..
39	Hariana	5,205	108	88	196	37.66	..	26	..	70	6	2	..	..
40	Garhdiwala	5,196	61	44	105	20.21	..	10	..	38	9	10	..	..
41	Dasuyah	3,889	135	135	270	69.43	..	3	6	66	11	23	..	..
42	Tanda Uramar	8,362	237	182	419	50.11	2	10	..	122	19	24	..	..
43	Miani	4,934	113	89	202	40.94	3	4	..	85	8	13	..	..
44	Mukerian	2,346	67	81	148	63.09	..	..	..	72	5	20	..	7	
45	Una	4,603	55	57	112	24.33	17	..	..	37	1	10	..	..
46	Anandpur	3,522	45	60	105	29.81	..	..	..	44	9	16	..	..
47	Garhshankar	5,196	85	65	150	28.87	..	..	..	77	..	11	..	1	
48	Jaijon	2,042	34	37	71	34.77	..	3	..	32	2	16	..	..
49	Shamchurasay	3,029	72	52	124	40.94	..	2	..	28	8	10	..	..
JULLUNDUR DISTRICT.															
50	Jullundur	59,085	1,586	1,534	3,120	52.81	51	25	..	689	159	422	2	..	
51	Kartarpur	8,512	203	227	430	50.52	4	..	..	178	34	85	..	..
52	Bungah	5,089	127	105	232	45.59	1	..	..	87	3	13	..	..
53	Rahon	5,947	159	117	276	46.41	..	..	..	135	5	18	..	..
54	Phillour	4,696	146	112	258	54.94	..	9	..	102	2	41	..	..
55	Nurmahal	6,845	179	191	370	54.05	1	2	..	61	15	119	..	..
56	Nakodar	9,434	214	189	403	42.72	..	13	..	143	3	22	..	..
57	Nawanshahr	5,316	115	119	234	44.02	2	1	..	73	7	27	1	..	
LUDHIANA DISTRICT.															
58	Ludhiana	51,880	1,238	1,215	2,453	47.28	1	67	..	526	81	341	..	..
59	Jajraon	17,731	431	398	829	46.75	..	34	..	130	18	55	..	..
60	Raekot	8,379	202	226	428	51.08	..	2	..	146	4	14	..	..
61	Khanna	5,365	115	80	195	36.35	..	..	..	43	9	23	..	..
FEROZEPORE DISTRICT.															
62	Ferozepore	29,695	697	599	1,296	43.64	11	9	..	278	64	236	..	..
63	Zira	4,622	125	75	200	43.27	..	1	..	63	6	18	..	..
64	Dharmkot	5,960	134	126	260	43.62	..	6	..	98	8	24	..	..

No. VI-B (TOWNS)—CONTINUED,

IN THE TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14										15	
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.													
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.	For the year.	Mean ratio of previous five years.	Number.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
12	14	232	531	0·04	0·34	..	1·22	1·87	7·42	0·54	8·87	20·31	19·71	32	
..	3	75	..	..	..	12·85	1·40	5·86	..	0·84	20·94	22·51	33	
..	3	73	..	0·33	..	10·11	0·33	12·07	..	0·98	23·82	21·79	34	
..	16	..	..	..	9·45	1·90	18·90	..	..	30·25	40·08	35	
..	11	63	..	0·29	..	5·26	1·46	8·18	..	3·22	18·42	Not available.	36	
..	99	583	1·74	1·60	..	11·93	2·63	4·84	..	4·65	27·39	27·18	37	
..	16	71	7·40	..	..	10·00	0·74	2·22	..	5·92	26·29	32·88	38	
1	1	9	114	..	5·00	..	13·45	1·15	0·38	0·19	1·73	21·90	24·32	39	
1	1	16	84	..	1·92	..	7·31	1·73	1·92	0·19	3·08	16·17	16·13	40	
1	1	28	138	..	0·77	1·54	16·97	2·83	5·91	0·26	7·20	35·48	44·43	41	
..	36	213	0·24	1·20	..	14·59	2·27	2·87	..	4·31	25·47	32·55	42	
..	10	123	0·61	0·81	..	17·23	1·62	2·63	..	2·03	24·97	29·79	43	
1	1	11	109	..	..	..	30·69	2·13	8·53	0·43	4·69	46·46	52·94	44	
..	9	74	3·69	..	..	8·04	0·22	2·17	..	1·96	16·08	23·98	45	
..	21	90	..	..	..	12·49	2·56	4·54	..	5·96	25·55	27·26	46	
4	5	4	97	..	..	..	14·82	..	2·12	0·96	0·77	18·67	Not available.	47	
1	1	7	61	..	1·47	..	15·67	0·98	7·84	0·49	3·43	29·87	Not available.	48	
..	25	73	..	0·66	..	9·24	2·64	3·30	..	8·25	24·10	Not available.	49	
37	2	..	41	688	2,075	0·86	0·42	..	11·66	2·69	7·14	0·70	11·64	35·12	30·26	50	
2	..	1	3	42	346	0·47	..	..	20·91	4·00	9·99	0·35	4·93	40·65	33·48	51
2	2	25	131	0·20	..	..	17·10	0·59	2·55	0·39	4·91	25·74	21·62	52	
..	16	174	..	..	..	22·70	0·84	3·03	..	2·69	29·26	27·88	53	
1	1	54	209	..	1·92	..	21·72	0·43	8·73	0·21	11·50	44·51	35·22	54	
2	2	30	230	0·15	0·29	..	8·91	2·20	17·38	0·29	4·38	33·60	27·67	55	
4	4	68	253	..	1·37	..	15·16	3·20	2·33	0·42	7·21	26·82	27·35	56	
2	3	26	139	0·38	0·19	..	13·73	1·32	5·08	0·56	4·89	26·15	Not available.	57	
1	1	563	1,580	0·02	1·29	..	10·14	1·56	6·57	0·02	10·85	30·45	30·75	58	
1	1	356	594	..	1·92	..	7·33	1·02	3·10	0·06	20·08	33·50	32·58	59	
..	137	303	..	0·24	..	17·42	0·48	1·67	..	16·35	36·16	27·50	60	
..	39	114	..	..	..	8·01	1·68	4·29	..	7·27	21·25	21·36	61	
10	10	230	838	0·37	0·30	..	9·36	2·16	7·95	0·34	7·75	28·22	23·42	62	
2	2	53	143	..	0·22	..	13·63	1·30	3·90	0·43	11·47	30·94	30·72	63	
..	28	164	..	1·01	..	16·44	1·34	4·03	..	4·70	27·52	32·69	64	

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE

1	2	3	4				5	6	7	8	9	10			
Number.	Towns.	Population according to Census of 1921.	BIRTHS.				Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	Suicide.		
1	2	3	4	5	6	7	8	9	10	11	12	13	Males.	Females.	
FEROZEPORE DISTRICT—CONCLUDED.															
65	Muktsar	.. ..	10,530	322	252	574	54·46	..	1	..	135	10	65	.. ..	.. ..
66	Fazilka	.. ..	13,829	364	305	669	48·38	..	23	..	267	14	86	.. ..	.. ..
67	Moga	.. ..	14,145	293	288	581	41·07	..	36	..	191	..	40	.. ..	.. ..
68	Abohar	.. ..	8,916	180	134	314	35·22	..	6	..	101	2	10	.. ..	.. ..
69	Gidarbaha	.. ..	5,178	80	58	138	26·65	..	..	..	55	8	20	.. ..	.. ..
70	Guruhar Sahai	.. ..	430	27	27	54	125·58	..	1	..	12	1	5	.. ..	.. ..
71	Jalalabad	.. ..	3,833	129	118	247	64·44	..	9	..	61	5	22	.. ..	.. ..
LAHORE DISTRICT.															
72	Lahore	.. ..	257,295	5,666	5,063	10,734	41·72	119	89	..	2,550	611	1,829	5	1
73	Chunian	.. ..	7,642	145	139	284	37·16	..	..	..	175	7	44	.. ..	.. ..
74	Khudian	.. ..	3,344	85	77	162	48·44	..	..	..	46	5	17	.. ..	.. ..
75	Kasur	.. ..	31,018	843	739	1,582	51·00	1	4	..	407	30	117	2	.. ..
76	Khem Karan	.. ..	6,152	183	154	337	54·78	..	6	..	127	1	20	.. ..	.. ..
77	Patti	.. ..	10,439	275	291	566	54·22	..	..	..	163	7	52	.. ..	.. ..
78	Baghbanpura-Bhogiwal	.. ..	10,251	221	255	476	46·43	31	..	..	179	5	47	.. ..	.. ..
79	Ichhra	.. ..	3,584	101	68	169	47·15	3	..	..	27	5	16	.. ..	.. ..
80	Pattoki Mandi	.. ..	3,836	102	114	216	56·31	..	2	..	55	..	3	.. ..	.. ..
81	Kot Rai Buta Mal and Azamabad.	.. ..	3,191	30	31	61	19·12	..	..	..	2	..	..	.. ..	.. ..
82	Niaz Beg	.. ..	2,960	42	39	81	27·36	..	1	..	44	..	2	.. ..	.. ..
83	Padhana	.. ..	4,606	105	89	194	42·12	..	..	..	53	15	6	.. ..	.. ..
84	Sur Singh	.. ..	5,674	149	131	280	49·35	..	..	..	45	6	23	1	.. ..
AMRITSAR DISTRICT.															
85	Amritsar	.. ..	157,031	4,393	3,817	8,210	52·28	15	45	..	2,464	115	2,151	11	2
86	Majitha	.. ..	5,664	158	131	289	51·02	2	1	..	90	6	24	.. ..	.. ..
87	Jandiala	.. ..	7,464	210	193	403	53·99	17	18	..	128	14	20	.. ..	.. ..
88	Tarn Taran	.. ..	5,988	206	137	343	57·28	2	..	..	58	7	22	.. ..	.. ..
89	Ram Dass	.. ..	3,553	123	116	239	67·27	..	1	..	112	2	7	.. ..	.. ..
90	Sultan Wind	.. ..	5,572	139	143	282	50·61	..	..	..	88	6	36	.. ..	.. ..
GURDASPUR DISTRICT.															
91	Gurdaspur	.. ..	8,906	209	174	383	43·00	1	..	..	108	9	20	.. ..	.. ..
92	Dina Nagar	.. ..	4,047	132	137	269	66·47	..	1	..	81	5	10	.. ..	.. ..
93	Pathankot	.. ..	7,353	174	205	379	51·54	1	..	..	131	14	31	.. ..	.. ..
94	Dalhousie	.. ..	1,157	21	21	42	28·83	..	..	..	7	4	13	.. ..	.. ..
95	Batala	.. ..	26,122	773	760	1,536	58·80	..	..	..	516	24	66	.. ..	.. ..
96	Dera Nanak	.. ..	4,333	117	102	219	50·54	..	..	..	77	7	10	1	.. ..

No. VI-B (TOWNS)—CONTINUED.

TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14										15	
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.													
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Palgue.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.	For the year.	Mean ratio of previous five years.	Number.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
1	1	89	301	..	0·09	..	12·81	0·95	6·17	0·09	8·44	28·56	30·44	65	
6	6	137	533	..	1·66	..	19·31	1·01	6·22	0·43	9·91	38·54	32·80	66	
..	102	369	..	2·55	..	13·50	..	2·83	..	7·21	26·09	20·35	67	
2	2	11	132	..	0·67	..	11·33	0·22	1·12	0·22	1·23	14·80	16·04	68	
4	4	32	119	..	..	..	10·62	1·54	3·86	0·77	6·18	22·98	8·30	69	
1	1	10	30	..	2·33	..	27·91	2·33	11·63	2·33	23·26	69·77	Not available.	70	
3	3	86	186	..	2·35	..	15·91	1·30	5·74	0·78	22·44	48·53		71	
114	3	3	126	2,794	8,118	0·46	0·35	..	9·91	2·37	7·11	0·49	10·86	31·55	31·86	72	
7	7	83	316	..	..	..	22·90	0·92	5·76	0·92	10·86	41·35	37·11	73	
..	20	88	..	..	..	13·76	1·50	5·08	..	5·98	26·32	43·96	74	
13	15	258	832	0·03	0·13	..	13·12	0·97	3·77	0·48	8·32	26·82	33·57	75	
1	1	49	204	..	0·98	..	20·64	0·16	3·25	0·16	7·96	33·16	34·10	76	
2	2	103	327	..	..	..	15·61	0·67	4·98	0·19	9·87	31·32	32·72	77	
3	1	..	4	60	326	3·02	..	..	17·46	0·49	4·58	0·39	5·85	31·80	33·66	78
1	1	16	68	0·84	..	..	7·53	1·40	4·46	0·28	4·46	18·97	14·12	79	
..	18	78	..	0·52	..	14·34	..	0·78	..	4·69	20·33	32·48	80	
..	2	4	..	..	..	0·63	..	..	..	0·63	1·25	Not available.	81	
..	4	51	..	0·34	..	14·86	..	0·68	..	1·35	17·23		82	
1	1	17	92	..	..	..	11·51	3·26	1·30	0·22	3·69	19·97	Not available.	83	
2	3	59	136	..	..	..	7·93	1·06	4·05	0·53	10·40	23·97		84	
109	..	3	125	1,054	5,969	0·09	0·29	..	15·69	0·73	13·70	0·80	6·71	38·01	42·61	85	
2	1	..	3	30	156	0·35	0·18	..	15·89	1·06	4·24	0·53	5·30	27·54	37·78	86	
..	32	229	2·28	2·41	..	17·15	1·88	2·68	..	4·29	30·68	32·90	87	
2	2	28	119	0·33	..	..	9·69	1·17	3·67	0·33	4·68	19·87	21·04	88	
1	1	5	128	..	0·28	..	31·52	0·56	1·97	0·28	1·41	36·03	Not available.	89	
1	..	1	2	41	173	..	..	..	15·79	1·08	6·46	0·36	7·36	31·05		90
2	2	54	194	0·11	..	..	12·13	1·01	2·25	0·22	6·06	21·78	26·97	91	
1	1	42	140	..	0·25	..	20·01	1·24	2·46	0·25	10·38	34·59	50·01	92	
7	7	93	277	0·14	..	..	17·82	1·90	4·22	0·95	12·65	37·67	44·96	93	
..	8	32	..	..	..	4·80	2·75	8·92	..	5·49	21·96	18·94	94	
6	6	160	772	..	..	..	19·75	0·92	2·53	0·23	6·13	29·55	37·67	95	
3	2	..	6	30	130	..	..	..	17·77	1·62	2·31	1·38	6·92	30·00	28·48	96

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE

1	2	3	4				5	6	7	8	9	10		
Number.	TOWNS.	Population according to Census of 1921.	BIRTHS.											Suicide
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
GURDASPUR DISTRICT—CONCLUDED.														
97	Dhariwal	..	3,351	96	87	183	54·61	..	2	..	43	14	19	..
98	Sujanpur	..	4,756	92	104	196	41·21	..	..	..	74	6	22	..
99	Narot	..	2,095	58	50	108	51·55	..	..	..	33	8	10	..
100	Fathegarh	..	4,559	114	104	218	47·82	..	16	..	62	6	6	..
101	Qadian	..	4,448	117	107	224	50·36	1	..	..	66	2	11	..
102	Sri Gobindpur	..	2,971	79	58	137	46·11	..	15	..	49	2	9	..
SILAKOT DISTRICT.														
103	Sailkot	..	56,018	1,742	1,609	3,351	59·82	..	6	6	761	127	513	1
104	Baska	..	6,283	25	24	49	7·80	..	..	..	8	1	2	..
105	Jamke	..	3,621	101	81	182	50·26	5	..	..	43	2	27	..
106	Pasrur	..	6,909	212	169	381	55·15	1	5	..	67	12	52	..
107	Zaffarwal	..	3,873	89	70	159	41·05	..	..	..	18	4	31	..
108	Narowal	..	5,343	160	155	315	58·96	..	7	..	87	14	34	..
109	Sambrial	..	3,324	66	53	119	35·80	..	1	..	23	1	2	..
110	Sahowala	..	3,410	79	82	161	47·21	..	5	..	39	3	12	..
111	Begowala	..	3,697	111	95	206	55·72	..	3	..	44	6	10	..
112	Bhopalwala	..	3,767	123	83	206	54·69	..	1	..	25	1	9	..
113	Mitranwali	..	3,177	88	66	154	48·47	..	..	..	55	1	12	..
114	Badomali	..	2,849	66	46	112	39·31	11	7	..	35	6	5	..
115	Kalaswala	..	2,846	57	72	129	45·33	..	..	..	28	8	17	..
116	Daud	..	3,285	58	47	105	31·96	..	1	..	41	1	2	..
117	Chawinda	..	4,979	139	118	257	51·62	..	15	..	45	8	59	..
GUJRANWALA DISTRICT.														
118	Gujranwala	..	37,887	1,044	826	1,870	49·36	5	10	..	741	51	150	..
119	Wazirabad	..	18,645	416	335	751	40·28	36	8	..	168	3	60	..
120	Eminabad	..	5,816	137	113	250	42·98	4	..	..	97	3	5	..
121	Kila Didar Singh	..	2,544	75	57	132	51·89	..	..	..	9	..	12	..
122	Akalgarh	..	5,147	105	118	223	43·33	1	..	..	85	7	20	..
123	Ramnagar	..	4,632	86	58	144	31·09	1	1	..	90	1	17	..
124	Sohdra	..	4,250	117	98	215	50·59	..	7	..	50	..	6	..
125	Hafizabad	..	8,854	181	167	348	39·30	..	14	..	153	2	36	..
126	Pindi Bhattian	..	3,845	86	58	144	37·45	..	..	..	73	..	10	..
SHEIKHUPURA DISTRICT.														
127	Khangah Dogran	..	5,201	40	26	66	12·69	..	..	..	26	..	1	..
128	Sangla	..	5,961	98	86	184	30·87	4	..	..	41	..	6	..
129	Sharakpur	..	4,127	115	99	214	51·85	2	..	..	63	10	18	..

No. VI-B (TOWNS)—CONTINUED.

TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14										15
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.												
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	For the year.	Mean ratio of previous five years.	Number.
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
2	2	52	132	..	0·60	..	12·83	4·18	5·67	0·60	15·52	39·39	97	
1	50	152	..	..	..	15·56	1·26	4·63	..	10·51	31·96	98	
1	1	35	87	..	..	..	15·75	3·82	4·77	0·48	16·71	41·53	99	
2	27	117	..	3·51	..	13·60	1·32	1·32	..	5·92	25·66	100	
2	2	18	100	0·22	..	..	14·84	0·45	2·47	0·45	4·05	22·48	101	
1	..	1	2	20	97	..	5·05	..	16·50	0·67	3·03	0·67	6·73	32·65	102	
17	..	1	19	344	1,776	..	0·11	0·11	13·58	2·27	9·16	0·34	6·14	31·70	35·37	103
1	1	2	14	..	..	..	1·27	0·16	0·32	0·16	0·32	2·23	17·19	104
2	2	7	86	1·38	..	..	11·88	0·55	7·46	0·55	1·93	23·75	26·51	105
3	3	50	190	0·14	0·72	..	9·70	1·74	7·53	0·43	7·24	27·50	27·76	106
1	1	19	73	..	..	..	4·65	1·03	8·00	0·26	4·91	18·85	27·47	107
3	3	36	181	..	1·31	..	16·28	2·62	6·36	0·56	6·74	33·88	33·28	108
1	1	1	29	..	0·30	..	6·92	0·30	0·60	0·30	0·30	8·72	21·00	109
1	1	14	74	..	1·47	..	11·44	0·88	3·52	0·29	4·11	21·71	16·13	110
1	1	8	72	..	0·81	..	11·90	1·62	2·70	0·27	2·16	19·48	19·91	111
1	1	13	50	..	0·27	..	6·64	0·27	2·39	0·27	3·45	13·27	20·12	112
1	1	22	91	..	..	..	17·31	0·31	3·78	0·31	6·93	28·64	34·69	113
1	1	10	75	3·86	2·46	..	12·29	2·11	1·75	0·35	3·51	26·33	19·59	114
..	24	77	..	..	..	9·84	2·81	5·97	..	8·43	27·06	26·87	115
..	13	58	..	0·30	..	12·48	0·30	0·61	..	3·96	17·66	20·64	116
2	2	21	150	..	3·01	..	9·04	1·61	11·85	0·40	4·22	30·13	27·48	117
23	1	..	24	363	1,344	0·13	0·26	..	19·56	1·35	3·96	0·63	9·58	35·47	36·75	118
6	6	89	370	1·93	0·43	..	9·01	0·16	3·22	0·32	4·77	19·84	21·90	119
2	2	11	122	0·70	..	..	16·68	0·52	0·86	0·34	1·89	20·98	26·41	120
1	1	19	41	..	..	..	3·54	..	4·72	0·39	7·47	16·12	28·85	121
2	2	52	167	0·19	..	..	16·51	1·36	3·89	0·39	10·10	32·45	26·35	122
3	3	33	146	0·22	0·22	..	19·43	0·22	3·67	0·65	7·12	31·52	28·89	123
..	17	80	..	1·65	..	11·76	..	1·41	..	4·00	18·82	25·18	124
5	5	32	242	..	1·58	..	17·28	0·23	4·07	0·56	3·61	27·33	18·91	125
1	1	18	102	..	..	..	18·99	..	2·60	0·26	4·68	26·53	23·04	126
..	3	30	..	..	..	5·00	..	0·19	..	0·58	5·77	6·31	127
1	1	6	58	0·67	..	..	6·88	..	1·01	0·17	1·01	9·73	4·70	128
2	2	58	153	0·48	..	..	15·27	2·42	4·36	0·48	14·05	37·07	32·37	129

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE

1 Number.	2 Towns.	3 Population according to Census of 1921.	4 BIRTHS.					5 Cholera.	6 Small-pox.	7 Plague.	8 Fevers.	9 Dysentery and Diarrhoea.	10 Respiratory diseases.	11 Males.	12 Females.	13 Suicide.
			4 Males.	5 Females.	6 Total.	7 Birth rate per 1,000 of population.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
SHEIKHUPURA DISTRICT—CONCLUDED.																
130	Shahkot ..	1,545	48	33	81	52·43	..	1	..	30	..	2	..	..	..	..
131	Chuharkana Mandi ..	3,847	55	45	100	26·00	..	..	..	13	1	7	..	..	..	..
132	Nankana Sahib ..	11,733	138	134	272	23·18	..	7	..	57	2	8	..	..	..	..
133	Shahdara ..	4,998	122	88	210	42·02	..	4	..	58	1	12	..	..	..	..
134	Sheikhupura ..	3,487	120	80	200	57·36	..	1	..	27	3	10	..	..	..	..
GUJRAT DISTRICT.																
135	Gujrat ..	21,974	640	609	1,249	56·84	17	..	..	393	41	124	1	..	..	..
136	Jalalpur ..	10,792	258	246	504	46·70	..	5	..	153	10	72	..	..	..	..
137	Kunjah ..	7,240	163	155	318	43·92	..	9	..	88	5	34	1	..	..	..
138	Dinga ..	6,014	101	99	200	33·26	..	..	..	63	6	11	..	..	..	..
139	Kharian ..	2,949	70	84	154	52·32	..	1	..	46	6	18	..	..	..	..
140	Malkwal ..	4,717	54	65	119	25·23	..	..	..	111	1	21	..	..	..	..
141	Lalamusa ..	2,311	71	56	127	54·95	..	..	..	56	2	10	..	..	..	..
SHAHPUR DISTRICT.																
142	Shahpur ..	4,590	73	67	140	30·50	..	..	..	73	13	38	..	..	..	..
143	Sahiwal ..	6,582	118	115	233	35·40	..	..	..	137	3	56	..	..	..	..
144	Bhera ..	17,027	269	279	548	32·18	10	..	..	365	38	136	..	..	..	..
145	Miani ..	5,965	108	72	180	30·18	..	1	..	152	1	39	..	..	..	..
146	Khushab ..	10,009	201	204	405	40·46	..	1	..	146	30	70	1	..	..	..
147	Sargodha ..	17,728	349	294	643	36·27	2	4	..	83	40	82	..	..	..	..
148	Shahpur Civil Station ..	2,481	35	32	67	27·01	..	..	..	14	5	70	..	..	..	..
149	Bhalwal ..	4,082	48	68	116	28·42	..	..	..	29	8	23	..	..	..	..
150	Nurpur ..	5,117	104	74	178	34·79	..	..	..	54	3	16	..	..	..	..
151	Silanwali ..	2,205	44	28	72	32·65	..	..	..	14	2	15	..	..	..	..
JHELUM DISTRICT.																
152	Jhelum ..	14,422	292	284	576	39·94	..	3	..	90	17	80	..	..	..	..
153	Pind Dadan Khan ..	9,919	171	151	322	32·46	..	3	..	171	12	38	1	..	..	..
154	Chakwal ..	7,425	136	139	275	37·04	..	1	..	80	6	27	..	..	..	..
RAWALPINDI DISTRICT.																
155	Rawalpindi ..	55,251	1,342	1,290	2,632	47·64	10	2	..	757	87	430	1	1	..	..
156	Murree ..	2,397	25	23	48	20·03	..	..	..	20	1	8	..	..	..	..
ATTOCK DISTRICT.																
157	Pindigheb ..	9,419	187	138	325	34·50	..	..	..	136	3	35	..	..	..	..
158	Hazro ..	8,408	181	135	316	37·58	3	16	..	103	3	41	..	..	..	..
159	Campbellpur ..	3,669	107	74	181	49·33	..	1	..	21	3	12	1	..	..	..

No. VI-B ((TOWNS)—CONTINUED.

TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12		13		14										15
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.												Number.		
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	For all causes.	For the year.	Mean ratio of previous five years.		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
..	4	37	..	0·65	..	19·42	..	1·29	..	2·59	23·95	24·21	130	
..	17	38	3·38	0·26	1·82	..	4·42	9·90	12·58	131	
..	23	97	..	0·60	..	4·86	0·17	0·68	..	1·96	8·27	9·07	132	
..	30	105	..	0·80	..	11·60	0·20	2·40	..	6·00	21·01	Not available.	133	
..	12	53	..	0·29	..	7·74	0·86	2·87	..	3·44	15·20		134	
6	7	157	739	0·77	..	..	17·88	1·87	5·64	0·32	7·14	33·63	32·22	135		
4	4	86	330	..	0·46	..	14·18	0·93	6·67	0·37	7·97	30·58	31·36	136		
1	..	1	3	58	197	..	1·24	..	12·15	0·69	4·70	0·41	8·01	27·21	30·91	137		
1	1	15	96	..	..	..	10·48	1·00	1·83	0·17	2·49	15·96	17·06	138		
1	1	22	94	..	0·34	..	15·60	2·03	6·10	0·34	7·46	31·88	Not available.	139		
2	2	21	156	..	..	..	23·53	0·21	4·45	0·42	4·45	33·07		140		
2	2	3	73	..	..	..	24·23	0·87	4·33	0·87	1·30	31·59		141		
2	2	19	145	..	..	..	15·90	2·83	8·28	0·45	4·14	31·59	28·71	142		
3	3	18	217	..	..	..	20·81	0·46	8·51	0·46	2·73	32·97	34·67	143		
6	1	..	7	146	702	0·59	..	..	21·44	2·23	7·99	0·41	8·57	41·23	34·76	144
1	..	1	2	6	201	..	0·17	..	25·48	0·17	6·54	0·34	1·01	33·70	33·23	145		
5	6	35	288	..	0·10	..	14·59	3·00	6·99	0·60	3·50	28·77	28·01	146		
5	5	51	267	0·11	0·23	..	4·68	2·26	4·63	0·28	2·88	15·06	14·03	147		
..	8	97	..	..	..	5·64	2·02	28·21	..	3·22	39·10	Not available.	148		
5	5	13	78	..	..	..	7·10	1·96	5·63	1·22	3·18	19·11		149		
1	..	1	1	9	83	..	..	..	10·55	0·59	3·13	0·20	1·76	16·22	Not available.	150
2	..	1	3	7	41	..	..	..	6·35	0·91	6·80	1·36	3·17	18·59		151
6	6	97	293	..	0·21	..	6·24	1·18	5·55	0·42	6·73	20·32	25·45	152		
2	3	27	254	..	0·30	..	17·24	1·21	3·83	0·30	2·72	25·61	29·40	153		
6	6	42	162	..	0·13	..	10·77	0·81	3·64	0·81	5·66	21·82	25·56	154		
24	26	431	1,743	0·18	0·04	..	13·70	1·57	7·78	0·47	7·80	31·55	29·38	155		
..	7	36	..	..	..	8·34	0·42	3·34	..	2·92	15·02	14·10	156		
5	5	12	191	..	..	..	14·44	0·32	3·72	0·53	1·27	20·28	23·78	157		
1	1	39	206	0·36	1·90	..	12·25	0·36	4·88	0·12	4·64	24·50	24·90	158		
17	18	20	75	..	0·27	..	5·72	0·82	3·27	4·91	5·45	20·44	14·45	159		

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE

1	2	3	4				5	6	7	8	9	10		
Number.	Towns.	Population according to Census of 1921.	BIRTHS.											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MIANWALI DISTRICT.														
160	Mianwali	9,115	248	201	449	49·26	..	1	..	99	1	24	..	..
161	Bhakkar	6,193	99	95	194	31·33	..	7	..	105	14	37	..	..
162	Isa Khel	6,172	116	90	206	33·38	88	1	..	109	1	23	..	..
163	Kalabagh	8,455	151	124	275	32·53	36	..	..	130	2	11	..	..
MONTGOMERY DISTRICT.														
164	Montgomery	14,601	193	178	371	25·41	..	14	..	80	13	46	..	..
165	Kamalia	8,916	228	190	418	46·88	..	2	..	192	11	10	..	1
166	Pakpattan	7,218	176	190	366	50·71	..	1	..	245	..	19	..	..
167	Okara	4,975	110	77	187	37·59	..	2	..	27	4	15	1	..
168	Chichawatni	2,100	43	35	78	37·14	..	..	..	24	..	8	..	..
169	Arafwala	1,000	39	38	77	77·00	..	1	..	23	1	9	..	..
LYALLPUR DISTRICT.														
170	Lyallpur	28,136	526	474	1,000	35·54	1	7	..	497	17	132	..	1
171	Gojra	7,622	134	110	244	32·01	..	..	..	78	1	25	..	..
172	Samundri	1,575	38	40	78	49·52	..	..	..	38	4	2	..	..
173	Tandlianwala	3,674	98	81	179	48·72	2	..	..	38	4	9	..	..
174	Chak Jhumera	3,340	65	74	139	41·62	..	..	..	46	2	5	..	..
175	Toba Tek Singh	5,041	67	59	126	25·00	..	..	..	39	1	4	..	..
176	Jaranwala	4,244	77	82	159	37·46	..	..	..	73	6	16	..	..
JHANG DISTRICT.														
177	Jhang-Maghiana	30,139	717	657	1,374	45·59	..	8	..	365	56	160	1	..
178	Chiniot	17,513	450	455	905	51·68	1	..	..	292	27	95	..	..
179	Ahmadpur	4,045	64	65	129	31·89	..	..	..	43	..	13	..	..
180	Shorkot	5,317	130	129	259	48·71	..	..	..	114	2	18	..	..
MULTAN DISTRICT.														
181	Multan	89,162	1,934	1,935	3,869	43·39	1	62	..	1,156	284	991	..	..
182	Shujabad	6,730	123	116	239	35·51	1	..	..	117	18	50	..	..
183	Jahanian	822	15	4	19	23·11	..	..	..	6	..	1	..	..
184	Mian Channu	2,294	39	45	84	36·62	..	1	..	51	..	12	..	..
185	Khanewal	5,647	55	56	111	19·66	21	1	..	45	9	15	..	..
186	Kahror	6,039	117	79	196	32·46	..	1	..	58	7	33	..	..
187	Kabirwala	1,245	19	18	37	29·72	..	11	..	33	2	5	..	..
188	Burewala	1,231	10	8	18	14·62	..	..	..	9	1	..	..	..
189	Talamba	3,048	93	83	176	57·74	..	1	..	44	3	5	..	..
190	Mailsi	2,002	34	23	57	28·47	..	5	..	19	2	8	..	..
191	Vehari	113	1	..	1	8·85	..	..	..	3	..	3	..	..

No. VI-B (TOWNS)—CONTINUED.

TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14										15	
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.													
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.	Mean ratio of previous five years.	Number.	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
1	1	33	159	..	0·11	..	10·86	0·11	2·63	0·11	3·62	17·44	15·05	160
..	29	192	..	1·13	..	16·95	2·26	5·97	..	4·68	31·00	36·59	161
1	1	39	262	14·26	0·16	..	17·66	0·16	3·73	0·16	6·32	42·45	23·95	162
3	3	26	208	4·26	15·38	0·24	1·30	0·35	3·08	24·60	25·17	163
6	6	38	197	..	0·96	..	5·48	0·89	3·15	0·41	2·60	13·49	11·90	164
3	1	5	85	305	..	0·22	..	21·53	1·23	1·12	0·56	9·53	34·21	31·07	165
..	33	298	..	0·14	..	33·94	..	2·63	..	4·57	41·29	44·78	166
6	7	11	66	..	0·40	..	5·43	0·80	3·02	1·41	2·21	13·27	21·83	167
..	4	36	11·43	..	3·81	..	1·90	17·14	Not available.	168
..	8	42	..	1·00	..	23·00	1·00	9·00	..	8·00	42·00		169
12	13	202	869	0·04	0·25	..	17·66	0·60	4·69	0·46	7·18	30·89	14·16	170	
2	2	36	142	..	..	..	10·23	0·13	3·28	0·26	4·72	18·63	13·80	171	
..	1	45	..	..	..	24·13	2·54	1·27	..	0·63	28·57	34·67	172	
..	7	60	0·54	..	..	10·34	1·09	2·45	..	1·91	16·33	Not available.	173	
1	1	14	68	..	..	..	13·77	0·60	1·50	0·30	4·19	20·36		174	
..	4	48	..	..	..	7·74	0·20	0·79	..	0·79	9·52		175	
..	35	130	..	..	..	17·20	1·41	3·77	..	8·25	30·63		176	
11	12	216	817	..	0·27	..	12·11	1·86	5·31	0·40	7·17	27·11	28·02	177	
10	4	..	14	193	622	0·06	..	..	16·67	1·54	5·42	0·80	11·02	35·52	33·62	178
4	4	13	73	..	..	..	10·63	..	3·21	0·99	3·21	18·05	24·38	179	
2	..	1	3	30	167	..	..	..	21·44	0·38	3·39	0·56	5·64	31·41	Not available.	180
85	85	538	3,117	0·01	0·70	..	12·97	3·19	11·11	0·95	6·03	34·96	34·73	181	
2	2	41	229	0·15	..	..	17·38	2·67	7·43	0·30	6·09	34·03	35·39	182	
..	7	..	..	..	7·30	..	1·22	..	..	8·52	7·54	183	
..	14	78	..	0·44	..	22·23	..	5·23	..	6·10	34·00	12·38	184	
..	6	97	3·72	0·18	..	7·97	1·59	2·66	..	1·06	17·18	10·48	185	
2	2	15	116	..	0·17	..	9·60	1·16	5·46	0·33	2·48	19·21	Not available.	186	
1	1	11	63	..	8·84	..	26·51	1·61	4·02	0·80	8·84	50·60		187	
..	10	..	..	..	7·31	0·81	..	..	..	8·12		188	
1	1	16	70	..	0·33	..	14·44	0·98	1·64	0·33	5·25	22·97	Not available.	189	
..	18	52	..	2·50	..	9·49	1·00	4·00	..	8·99	25·97		190	
..	6	..	..	..	26·55	..	26·55	..	..	53·10		191	

DEATHS FROM DIFFERENT CAUSES AND BIRTHS REGISTERED IN THE

1	2	3	4				5	6	7	8	9	10
Number.	Towns.	Population according to Census of 1921.	BIRTHS.									
1	2	3	4	5	6	7	8	9	10	11	12	13
MUZAFFARGARH DISTRICT.												
192	Muzaffargarh	5,386	82	71	153	28·41	..	..	..	111	7	16
193	Khangarh	3,184	44	47	91	28·58	..	..	..	97	9	13
194	Alipur	3,434	83	81	164	47·76	..	1	..	105	6	27
195	Leiah	8,476	170	162	332	39·17	..	2	..	283	6	24
196	Karor	3,539	61	46	107	30·23	..	..	..	147	1	2
197	Kot Adu	5,267	86	70	156	29·62	..	..	..	103	..	8
198	Khairpur Saadat	2,477	36	34	70	28·26	..	..	..	35	7	6
DERA GHAZI KHAN DISTRICT.												
199	Dera Ghazi Khan	20,731	429	394	823	39·70	..	..	..	340	52	35
200	Jampur	7,317	165	174	339	46·33	..	..	..	141	15	32
201	Dajal	5,775	136	143	279	48·31	..	..	..	170	13	38
202	Rajanpur	3,964	86	77	163	41·12	..	..	..	187	4	35
203	Kot Mithan	3,204	51	40	91	28·40	..	..	..	127	9	9
204	Kot Chhutta	2,431	55	34	89	36·61	..	..	..	81	2	20
205	Vahoea	2,488	45	52	97	38·99	3	..	..	99	19	3
206	Taunsa	5,533	82	65	147	26·57	..	4	..	96	1	3
Total		2,240,286	52,095	47,125	99,220	44·29	700	1,138	12	30,829	3,425	13,211
Total of the Province		20,517,606	469,771	417,750	887,521	43·26	1,181	5,341	554	422,377	12,247	51,678

Suicide.

Males.

Females.

15

16

No. VI-B (TOWNS)—CONCLUDED.

TOWNS OF THE PUNJAB DURING THE YEAR 1930.

11				12	13	14										15		
INJURIES.				RATIO OF DEATHS PER 1,000 OF POPULATION.														
Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.	For the year.	Mean ratio of previous five years.	Number.	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
..	..	..	..	9	143	..	..	..	20·61	1·30	2·97	..	1·67	26·55	24·43	192	
..	..	..	..	11	130	..	..	..	30·46	2·83	4·08	..	3·45	40·83	42·15	193	
..	..	..	..	15	154	..	0·29	..	30·58	1·75	7·86	..	4·37	44·85	33·84	194	
3	1	1	5	24	344	..	0·24	..	33·39	0·71	2·83	0·59	2·83	40·59	29·47	195		
..	..	..	..	7	157	..	..	..	41·54	0·28	0·57	..	1·98	44·36	38·60	196	
..	..	..	3	1	115	..	..	..	19·56	..	1·52	0·57	0·19	21·83	15·68	197	
..	..	..	..	13	61	..	..	..	14·13	2·83	2·42	..	5·25	24·63	Not available.	198	
3	..	..	3	124	554	..	..	..	16·41	2·51	1·69	0·14	5·98	26·73	24·20	199	
2	..	..	2	64	254	..	..	..	19·27	2·05	4·37	0·27	8·75	34·71	34·36	200	
1	..	..	1	49	271	..	..	..	29·44	2·25	6·58	0·17	8·48	46·93	43·74	201	
..	..	..	1	43	270	..	..	..	47·17	1·01	8·83	0·25	10·85	68·12	35·37	202	
..	..	..	38	183	..	..	..	..	39·64	2·81	2·81	..	11·86	57·12	32·83	203	
..	1	..	1	37	141	..	..	..	33·32	0·82	8·23	0·41	15·22	58·00	Not available.	204	
..	1	..	1	16	141	1·21	..	..	39·79	7·64	1·21	0·40	6·43	56·67		205	
2	1	..	3	4	111	..	0·72	..	17·35	0·18	0·54	0·54	0·72	20·06		206		
755	24	16	838	18,012	68,165	0·31	0·51	0·01	13·76	1·53	5·90	0·37	8·04	30·43	30·19			
5,135	626	95	6,103	109,101	608,582	0·06	0·26	0·03	20·59	0·60	2·52	0·30	5·32	29·66	29·48			

Annex

ANNUAL FORM No. VI-C.

BIRTHS AND DEATHS REGISTERED IN THE CANTONMENTS OF THE PUNJAB DURING THE YEAR 1930.

CANTONMENTS.	INJURIES.																		Number. Ratio of deaths per 1,000 of popu- lation.	Number. Ratio of births per 1,000 of popu- lation.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1 Ambala	36,356	1	3	..	..	..	..	..	..	..	..	..	..	1
2 Kasauli	3,212	..	..	18	1	..	..	..	..	..	..	..	..	2
3 Dagshai	1,745	..	1	..	..	..	..	..	..	..	..	..	..	3
4 Subathu	1,581	..	..	..	..	..	..	..	..	..	..	..	..	4
5 Jutogh	1,064	..	..	..	..	..	..	..	..	..	..	..	..	5
6 Dharmshala	1,318	..	..	..	..	..	..	..	..	..	..	..	..	6
7 Jullundur	9,019	..	..	..	..	..	..	..	..	..	..	..	..	7
8 Ferozepore	18,941	..	1	..	..	..	..	..	..	..	..	..	..	8
9 Lahore	14,606	6	..	..	..	..	..	..	..	..	..	..	..	9
10 Amritsar	976	..	..	..	..	..	..	..	..	..	..	..	..	10
11 Dalhousie	948	..	..	..	..	..	..	..	..	..	..	..	..	11
12 Bakloh	3,430	..	..	..	..	..	..	..	..	..	..	..	..	12
13 Sialkot	7,123	3	1	..	..	..	..	..	..	..	..	..	..	13
14 Jhelum	1,500	..	..	..	..	..	..	..	..	..	..	..	..	14
15 Rawalpindi	27,657	..	..	..	..	..	..	..	..	..	..	..	..	15
16 Campbellpur	4,190	..	..	..	..	..	..	..	..	..	..	..	..	16
17 Murree	874	..	..	..	..	..	..	..	..	..	..	..	..	17
18 Multan	6,090	..	..	..	..	..	..	..	..	..	..	..	..	18
Total	..	140,630	10	7	..	1,471	100	375	1	..	21	24	46	700	2,709	19	4,073	29	..	..

ANNUAL FORM No. VII.

DEATHS REGISTERED FROM CHOLERA IN THE DISTRICTS OF THE PUNJAB DURING EACH
MONTH OF THE YEAR 1930.

DEATHS REGISTERED FROM CHOLERA IN THE DISTRICTS

1	2	3	4		5						
Number.	DISTRICTS.	CIRCLES OF REGISTRATION.	VILLAGES.		MON						
1	2	3	4	5	6	7	8	9	10	11	12
	AMBALA DIVISION.										
1	Hissar ..	28	3	960	1	..	..	..	..	..	..
2	Rohtak ..	20	6	722	4	..	..	..	1	..	..
3	Gurgaon ..	23	1	1,351	1	..	..	..	..	..	11
4	Karnal ..	24	5	1,390	..	..	..	..	..	..	..
5	Ambala ..	20	6	1,714	7	..	..	..	1	1	1
6	Simla ..	3	1	208	..	..	..	..	..	1	..
	JULLUNDUR DIVISION.										
7	Kangra ..	19	2	709	2	..	..	..	..	1	..
8	Hoshiarpur ..	26	10	2,108	51	..	1	..	..	5	..
9	Jullundur ..	17	12	1,221	14	..	..	..	..	..	19
10	Ludhiana ..	15	1	840	..	..	..	..	..	..	..
11	Ferozepore ..	31	..	1,497	..	..	..	..	..	..	..
	LAHORE DIVISION.										
12	Lahore ..	36	15	1,117	24	..	1	..	..	..	3
13	Amritsar ..	19	13	1,035	32	..	..	2	..	4	4
14	Gurdaspur ..	29	6	2,246	3	..	..	..	..	..	..
15	Sialkot ..	28	5	2,053	4	..	..	..	..	..	..
16	Gujranwala ..	22	7	1,212	7	..	..	1	1	1	..
17	Sheikhupura ..	22	4	1,212	2	..	..	..	..	..	..
	RAWALPINDI DIVISION.										
18	Gujrat ..	21	1	1,436	..	..	..	..	..	..	..
19	Shahpur ..	27	2	985	..	..	..	..	2	..	..
20	Jhelum ..	15	2	888	2	..	..	..	..	2	..
21	Rawalpindi ..	14	10	1,170	19	..	..	..	1	10	2
22	Attock ..	14	3	618	6	..	..	..	..	..	..
23	Mianwali ..	16	4	375	3	..	..	..	..	..	27
	MULTAN DIVISION.										
24	Montgomery ..	30	3	1,833	4	..	..	..	..	..	..
25	Lyallpur ..	24	5	969	5	..	..	..	..	..	26
26	Jhang ..	15	1	981	..	..	..	..	..	..	..
27	Multan ..	31	7	1,641	3	..	..	..	..	4	19
28	Muzaffargarh ..	25	..	848	..	..	..	..	..	..	..
29	Dera Ghazi Khan ..	25	1	713	..	..	..	..	..	..	..
	Total ..	639	136	34,052	194	..	2	3	6	29	112

No. VII.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

THS.							6			7			8	9
	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	Number.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	
15	28	26	..	..	..	43	26	69	0·10	0·07	0·08	0·12	1	
..	22	18	2	..	..	25	18	43	0·06	0·05	0·06	0·08	2	
..	..	..	..	..	..	8	3	11	0·02	0·01	0·02	0·23	3	
..	2	3	..	..	..	4	1	5	0·01	0·003	0·01	0·07	4	
2	5	9	2	..	..	19	2	21	0·05	0·01	0·03	0·13	5	
..	..	..	..	..	..	1	..	1	0·03	..	0·02	0·004	6	
..	1	..	..	..	..	2	..	2	0·01	..	0·002	0·38	7	
11	156	43	..	..	..	110	106	216	0·22	0·25	0·23	0·08	8	
3	73	7	..	..	..	66	36	102	0·15	0·10	0·13	0·09	9	
..	1	..	..	..	..	1	..	1	0·003	..	0·01	0·19	10	
..	11	..	1	1	..	11	2	13	0·02	0·004	0·01	0·64	11	
9	124	48	5	2	1	126	67	193	0·20	0·14	0·17	0·83	12	
5	24	37	1	1	1	51	28	79	0·10	0·07	0·09	0·21	13	
..	3	6	..	..	..	6	3	9	0·01	0·01	0·01	0·08	14	
..	13	5	..	5	..	13	10	23	0·03	0·03	0·03	0·06	15	
..	18	35	..	..	..	28	28	56	0·08	0·10	0·09	0·06	16	
..	3	5	..	..	..	5	3	8	0·01	0·01	0·01	0·09	17	
..	9	8	..	..	..	8	9	17	0·02	0·02	0·02	0·08	18	
2	6	2	..	..	..	4	8	12	0·01	0·02	0·02	0·25	19	
..	1	..	..	..	..	1	2	3	0·004	0·01	0·01	0·19	20	
17	16	5	11	..	..	32	30	62	0·11	0·12	0·11	0·05	21	
..	18	9	..	2	..	16	13	29	0·06	0·05	0·06	0·01	22	
13	..	90	..	..	..	62	68	130	0·33	0·40	0·36	0·06	23	
2	1	..	1	..	..	4	..	4	0·01	..	0·01	0·18	24	
..	5	11	..	..	..	23	19	42	0·04	0·05	0·04	0·14	25	
..	1	..	..	..	..	..	1	1	..	0·004	0·002	0·07	26	
1	2	..	..	..	..	20	6	26	0·04	0·02	0·03	0·02	27	
..	..	..	..	..	..	..	..	..	..	..	..	0·02	28	
..	..	..	..	..	..	1	2	3	0·003	0·01	0·01	0·002	29	
83	543	367	23	11	2	690	491	1,181	0·06	0·05	0·06	0·18		

1	2	3	4		5								
Number.	DISTRICTS.	CIRCLES OF REGISTRATION.	VILLAGES.		MON								
1	2	3	4	5	6	7	8	9	10	11	12	13	
AMBALA DIVISION.													
1	Hissar	..	28	28	960	650	52	59	45	60	61	83	31
2	Rohtak	..	20	17	722	35	41	22	33	46	56	43	11
3	Gurgaon	..	23	20	1,351	87	15	41	69	93	60	33	6
4	Karnal	..	24	14	1,390	20	21	1	5	17	69	39	2
5	Ambala	..	20	18	1,714	82	19	23	31	30	53	51	17
6	Simla	..	3	1	208	..	..	..	2	3	3	..	1
JULLUNDUR DIVISION.													
7	Kangra	..	19	9	709	19	1	2	2	5	7	9	..
8	Hoshiarpur	..	26	21	2,108	306	118	42	37	69	130	105	60
9	Jullundur	..	17	14	1,221	40	23	13	5	10	13	7	18
10	Ludhiana	..	15	12	840	45	59	21	20	29	22	27	13
11	Ferozepore	..	31	26	1,497	1,015	39	40	42	65	134	97	70
LAHORE DIVISION.													
12	Lahore	..	36	26	1,117	265	41	26	30	49	71	66	55
13	Amritsar	..	19	16	1,035	76	34	12	15	16	20	25	22
14	Gurdaspur	..	29	20	2,246	67	22	15	23	11	25	28	8
15	Sialkot	..	28	22	2,053	127	22	21	11	17	40	26	15
16	Gujranwala	..	22	15	1,212	14	13	33	12	15	15	20	16
17	Sheikhupura	..	22	17	1,212	29	8	5	..	..	7	5	16
RAWALPINDI DIVISION.													
18	Gujrat	....	21	17	1,436	199	28	31	25	38	38	44	27
19	Shahpur	..	27	12	985	33	30	4	3	5	6	8	4
20	Jhelum	..	15	14	888	48	35	21	11	14	15	21	19
21	Rawalpindi	..	14	8	1,170	15	..	7	1	3	3	6	1
22	Attock	..	14	8	618	20	20	4	3	1	..	1	11
23	Mianwali	..	16	8	375	7	..	1	1	..	4	3	5
MULTAN DIVISION.													
24	Montgomery	..	30	27	1,833	83	28	21	21	21	44	25	30
25	Lyallpur	..	24	14	969	32	2	1	5	12	22	..	..
26	Jhang	..	15	6	981	10	1	..	..	..	3	6	1
27	Multan	..	31	25	1,641	67	2	5	6	8	26	19	33
28	Muzaffargarh	..	25	3	848	2	1	1	..	2	..	..	..
29	Dera Ghazi Khan	..	25	7	713	8	..	..	..	4	..	1	..
Total		..	639	445	34,052	3,401	675	472	458	643	947	798	492

No. VIII.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

THS.							6		7		8			9		10
	August.	September.	October.	November.	December.		TOTAL.		NUMBER OF DEATHS AMONG CHILDREN.		RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.		Number.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
10	24	3	6	9	238	205	443	161	213	0·55	0·54	0·54	0·65	1		
6	2	3	4	3	159	111	270	81	154	0·38	0·31	0·35	0·19	2		
2	..	..	..	..	166	153	319	90	191	0·45	0·49	0·47	0·08	3		
..	..	..	..	13	94	73	167	54	70	0·21	0·19	0·20	0·22	4		
5	4	2	..	6	125	116	241	47	105	0·35	0·41	0·38	0·23	5		
..	..	..	..	..	7	2	9	1	1	0·25	0·15	0·22	0·24	6		
2	5	2	1	..	20	16	36	3	4	0·05	0·04	0·05	0·14	7		
27	38	20	10	21	370	307	677	222	279	0·74	0·72	0·73	0·91	8		
8	4	..	4	8	53	60	113	25	53	0·12	0·17	0·14	0·26	9		
2	7	1	7	12	126	94	220	65	106	0·40	0·38	0·39	0·45	10		
18	20	14	7	20	295	271	566	171	307	0·49	0·56	0·52	0·37	11		
26	14	8	17	20	231	192	423	96	252	0·36	0·40	0·38	0·93	12		
10	4	3	9	17	95	92	187	52	92	0·18	0·22	0·20	0·48	13		
6	5	5	..	2	79	71	150	39	62	0·17	0·19	0·18	0·27	14		
11	2	1	12	31	113	96	209	58	122	0·24	0·24	0·24	0·54	15		
3	1	..	3	5	73	63	136	41	78	0·21	0·23	0·22	0·68	16		
8	7	1	2	12	31	40	71	22	40	0·09	0·14	0·11	0·63	17		
4	1	2	15	52	153	152	305	80	178	0·35	0·39	0·37	0·73	18		
3	..	..	..	..	33	30	63	16	32	0·08	0·09	0·09	0·78	19		
3	..	4	3	6	68	84	152	41	95	0·28	0·36	0·32	0·50	20		
2	..	..	..	5	14	14	28	9	12	0·05	0·06	0·05	0·28	21		
..	..	..	3	..	21	22	43	16	25	0·08	0·09	0·08	0·47	22		
..	1	1	..	..	9	7	16	5	9	0·05	0·04	0·04	0·22	23		
18	10	7	9	9	120	123	243	54	149	0·31	0·38	0·34	1·27	24		
..	..	..	..	4	34	12	46	31	15	0·07	0·03	0·05	0·69	25		
2	..	1	2	2	9	9	18	7	10	0·03	0·03	0·03	0·26	26		
12	5	9	17	31	74	99	173	38	113	0·15	0·25	0·20	0·41	27		
..	1	..	..	..	1	4	5	1	2	0·003	0·02	0·01	0·30	28		
4	..	2	1	..	7	5	12	..	9	0·03	0·02	0·03	0·50	29		
192	155	89	132	288	2,818	2,523	5,341	1,526	2,778	0·25	0·27	0·26	0·50			

DEATHS REGISTERED FROM PLAGUE IN THE DISTRICTS

1 Number.	2 DISTRICTS.	3 CIRCLES OF REGISTRATION.		4 VILLAGES.		MONTHS.						
		3 Number in each district.	4 Number from which deaths from Plague were reported.	5 Number in each district.	6 Number from which deaths from Plague were reported.	7 January.	8 February.	9 March.	10 April.	11 May.	12 June.	
1	2	3	4	5	6	7	8	9	10	11	12	
AMBALA DIVISION.												
1	Hissar ..	28	..	960	..	..	..	..	..	..	..	..
2	Rohtak ..	20	2	722	2	..	..	..	1	..	1	..
3	Gurgaon ..	23	..	1,351	..	..	..	..	..	..	..	..
4	Karnal ..	24	1	1,390	4	..	..	..	..	..	..	..
5	Ambala ..	20	..	1,714	..	..	..	..	..	..	..	..
6	Simla ..	3	..	208	..	..	..	..	..	..	..	..
JULLUNDUR DIVISION.												
7	Kangra ..	19	..	709	..	..	..	..	..	..	..	..
8	Hoshiarpur ..	26	2	2,108	10	..	..	..	..	6	18	..
9	Jullundur ..	17	..	1,221	..	..	..	..	..	..	..	..
10	Ludhiana ..	15	..	840	..	..	..	..	..	..	..	..
11	Ferozepore ..	31	..	1,497	..	..	..	..	..	..	..	..
LAHORE DIVISION.												
12	Lahore ..	36	..	1,117	..	..	..	..	..	..	..	..
13	Amritsar ..	19	..	1,035	..	..	..	..	..	..	..	..
14	Gurdaspur ..	29	3	2,246	33	2	1	72	110	65	1	..
15	Sialkot ..	28	5	2,053	40	1	4	23	64	88	18	..
16	Gujranwala ..	22	..	1,212	..	..	..	..	..	..	..	..
17	Sheikhupura ..	22	..	1,212	..	..	..	..	..	..	..	..
RAWALPINDI DIVISION.												
18	Gujrat ..	21	..	1,436	..	..	..	..	..	..	..	..
19	Shahpur ..	27	..	985	..	..	..	..	..	..	..	..
20	Jhelum ..	15	..	888	..	..	..	..	..	..	..	..
21	Rawalpindi ..	14	..	1,170	..	..	..	..	..	..	..	..
22	Attock ..	14	..	618	..	..	..	..	..	..	..	..
23	Mianwali ..	16	..	375	..	..	..	..	..	..	..	..
MULTAN DIVISION.												
24	Montgomery ..	30	..	1,833	..	..	..	..	..	..	..	..
25	Lyallpur ..	24	..	969	..	..	..	..	..	..	..	..
26	Jhang ..	15	..	981	..	..	..	..	..	..	..	..
27	Multan ..	31	..	1,641	..	..	..	..	..	..	..	..
28	Muzaffargarh ..	25	..	848	..	..	..	..	..	..	..	..
29	Dera Ghazi Khan ..	25	..	713	..	..	..	..	..	..	..	..
Total ..		639	13	34,052	89	3	5	96	192	172	19	

No. IX-A.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

July.	August.	September.	October.	November.	December.			6		7		8		9	
						TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.				Mean ratio per 1,000 for previous five years.		Number.	
13	14	15	16	17	18	19	20	21	22	23	24	25	26		
..	3.68	1		
..	1	1	2	0.002	0.002	0.002	6.63	2		
..	2.71	3		
..	4	8	12	0.01	0.02	0.01	7.90	4		
..	2.52	5		
..	6		
..	0.004	7		
..	39	25	63	0.05	0.09	0.07	0.82	8		
..	0.12	9		
..	0.99	10		
..	1.27	11		
..	1.58	12		
..	1.83	13		
..	2	9	..	105	157	262	0.22	0.41	0.31	2.24	14		
..	7	10	101	114	215	0.21	0.29	0.25	1.79	15		
..	1.75	16		
..	1.99	17		
..	1.09	18		
..	0.10	19		
..	0.28	20		
..	0.08	21		
..	0.07	22		
..	0.001	23		
..	0.55	24		
..	1.03	25		
..	0.15	26		
..	0.14	27		
..	0.02	28		
..	0.001	29		
..	..	2	16	49	236	318	554	0.02	0.03	0.03	1.61				

STATEMENT

MONTHLY STATEMENT OF PLAGUE OCCURRENCES IN BRITISH

No. IX (b).

DISTRICTS AND PUNJAB STATES IN THE PUNJAB DURING THE YEAR 1930.

JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		TOTAL.		Serial No.	REMARKS.
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
..	1
..	2	2	..	2
..	3
..	17	12	..	4
..	1	..	..	5
..	6
..	7
..	49	39	75	63	..	8
..	9
..	1	..	..	10
..	11
..	12
..	13
..	9	2	13	9	..	..	442	262	..	14
..	2	..	11	7	16	10	385	215	..	15
..	16
..	17
..	18
..	19
..	20
..	21
..	22
..	23
..	24
..	25
..	26
..	27
..	28
..	29
..	11	2	24	16	65	49	923	554	..	1
..	2
..	14	5	..	3
..	4
..	5
..	6
..	7
..	8
..	9
..	10
..	11
..	12
..	14	5	..	
..	937	669	..	
..	11	2	24	16	65	49	..	..	..

DEATHS REGISTERED FROM FEVERS IN THE DISTRICTS

1	2	3	CIRCLES OF REGISTRATION.		VILLAGES.							5
Number.	DISTRICTS.	Number in each district.	Number from which Fever deaths were reported.	Number in each district.	Number from which Fever deaths were reported.	January.	February.	March.	April.	May.	June.	MON-
1	2	3	4	5	6	7	8	9	10	11	12	
	AMBALA DIVISION.											
1	Hissar ..	28	28	960	785	1,382	1,175	1,443	849	855	1,406	
2	Rohtak ..	20	20	722	722	1,712	1,219	1,155	1,541	1,831	1,583	
3	Gurgaon ..	23	23	1,351	1,351	1,299	984	1,109	1,487	1,649	1,458	
4	Karnal ..	24	24	1,390	1,390	1,236	940	857	972	1,415	1,424	
5	Ambala ..	20	20	1,714	1,714	437	389	351	522	680	748	
6	Simla ..	3	3	208	123	19	8	13	10	.16	10	
	JULLUNDUR DIVISION.											
7	Kangra ..	19	19	709	709	794	699	704	804	1,032	769	
8	Hoshiarpur ..	26	26	2,108	1,991	1,519	1,093	1,243	1,531	1,968	1,810	
9	Jullundur ..	17	17	1,221	1,159	1,155	1,034	1,072	1,173	1,703	1,521	
10	Ludhiana ..	15	15	840	790	917	675	556	729	807	873	
11	Ferozepore ..	31	31	1,497	1,492	1,609	1,302	1,371	1,483	1,701	1,526	
	LAHORE DIVISION.											
12	Lahore ..	36	36	1,117	1,114	1,558	1,146	1,170	1,253	1,817	1,656	
13	Amritsar ..	19	19	1,035	1,035	1,472	1,117	983	1,189	1,827	1,663	
14	Gurdaspur ..	29	29	2,246	2,246	1,340	935	844	1,070	1,434	1,333	
15	Sialkot ..	28	28	2,053	2,053	1,403	1,045	1,031	1,027	1,772	1,417	
16	Gujranwala ..	22	22	1,212	1,212	1,994	1,257	1,088	889	1,594	1,467	
17	Sheikhupura ..	22	22	1,212	1,212	1,309	879	849	888	1,472	1,265	
	RAWALPINDI DIVISION.											
18	Gujrat ..	21	21	1,436	1,436	1,878	1,457	1,267	1,097	1,232	1,282	
19	Shahpur ..	27	27	985	985	2,835	1,816	1,364	1,195	1,295	1,323	
20	Jhelum ..	15	15	888	888	1,326	1,137	927	679	798	725	
21	Rawalpindi ..	14	14	1,170	1,170	1,394	1,058	807	680	813	732	
22	Attock ..	14	14	618	618	1,811	1,484	1,065	815	710	750	
23	Mianwali ..	16	16	375	375	1,484	1,004	891	715	712	673	
	MULTAN DIVISION.											
24	Montgomery ..	30	30	1,833	1,833	1,765	1,314	1,277	1,338	1,544	1,366	
25	Lyallpur ..	24	24	969	969	1,377	1,185	1,134	1,498	2,630	2,085	
26	Jhang ..	15	15	981	942	1,871	1,086	821	792	880	983	
27	Multan ..	31	31	1,641	1,641	2,984	2,275	1,903	1,484	1,825	1,502	
28	Muzaffargarh ..	25	25	848	848	2,445	1,815	1,257	888	1,168	969	
29	Dera Ghazi Khan ..	25	25	713	543	1,824	1,476	1,342	897	801	702	
	Total ..	639	639	34,052	33,346	44,149	33,004	29,894	29,495	37,981	35,021	

No. X.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

						6			7			8	9
						TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	
July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	25	26
13	14	15	16	17	18	19	20	21	22	23	24	25	26
1,101	966	1,330	1,352	1,345	1,266	7,749	6,721	14,470	17·79	17·63	17·72	19·25	1
1,014	1,222	1,545	1,525	1,440	1,207	8,949	8,045	16,994	21·44	22·67	22·01	21·80	2
986	1,062	1,835	2,381	1,750	1,387	8,980	8,407	17,387	24·42	26·76	25·49	21·67	3
842	815	1,312	1,857	1,839	1,994	7,942	7,561	15,503	17·51	20·16	18·71	22·79	4
455	637	728	888	671	644	3,698	3,452	7,150	10·24	12·29	11·14	12·98	5
14	13	16	23	6	7	82	73	155	2·97	5·47	3·79	3·92	6
635	776	985	898	811	824	5,160	4,571	9,731	13·13	12·30	12·72	13·49	7
1,410	1,722	2,376	2,248	1,901	1,966	10,903	9,884	20,787	21·86	23·05	22·41	22·04	8
1,336	1,492	1,531	1,557	1,540	1,471	8,493	8,092	16,585	18·87	22·26	20·39	18·88	9
686	669	913	1,011	985	857	5,134	4,544	9,678	16·10	18·27	17·05	16·74	10
1,246	1,439	2,131	2,095	2,267	2,294	10,978	9,486	20,464	18·33	19·74	18·96	15·65	11
1,336	1,644	1,934	1,750	1,673	1,733	9,945	8,725	18,670	15·62	18·17	16·72	14·29	12
1,301	1,759	1,872	1,746	1,698	1,620	9,574	8,673	18,247	18·46	21·16	19·65	22·61	13
1,027	1,226	1,727	1,906	1,656	1,551	8,332	7,717	16,049	17·82	20·30	18·93	18·30	14
1,038	1,163	1,481	1,518	1,434	1,360	8,175	7,514	15,689	17·31	18·94	18·06	19·09	15
1,084	1,175	1,544	1,561	1,789	1,716	9,082	8,076	17,158	26·05	29·38	27·52	21·30	16
962	1,056	1,254	1,273	1,298	1,289	7,346	6,448	13,794	20·91	23·26	21·95	16·79	17
1,150	1,090	1,221	1,384	1,399	1,538	8,596	7,399	15,995	19·60	19·19	19·41	15·76	18
1,010	977	1,011	1,085	1,355	1,424	8,708	7,982	16,690	22·21	24·35	23·18	18·96	19
587	573	744	844	907	976	5,324	4,899	10,223	22·14	20·84	21·50	17·80	20
572	581	694	816	912	1,017	5,344	4,732	10,076	18·28	19·05	18·64	15·75	21
736	636	645	760	1,041	1,247	6,166	5,534	11,700	23·53	22·50	23·03	19·88	22
539	579	678	764	946	1,043	5,305	4,723	10,028	27·92	28·08	28·00	24·42	23
934	1,173	1,553	1,889	2,152	2,207	9,730	8,782	18,512	24·73	27·41	25·93	18·87	24
1,544	1,791	2,005	1,756	1,802	1,559	10,333	10,033	20,366	19·77	24·28	21·76	17·44	25
757	770	802	903	1,097	1,243	6,218	5,787	12,005	20·35	21·83	21·04	17·65	26
1,313	1,104	1,233	1,599	1,914	2,257	11,462	9,931	21,393	23·65	24·85	24·20	20·35	27
810	764	895	1,276	1,468	1,617	8,360	7,012	15,372	27·09	26·98	27·04	23·21	28
603	470	651	776	927	1,037	6,402	5,104	11,506	24·87	24·11	24·53	20·08	29
27,028	29,344	36,646	39,441	40,023	40,351	222,470	199,907	422,377	19·85	21·47	20·59	18·67	

DEATHS REGISTERED FROM DYSENTERY AND DIARRHœA IN THE DISTRICTS

1	2	3	4	5							
Number.	DISTRICTS.	CIRCLES OF REGISTRATION.	VILLAGES.	MON							
1	2	3	4	5	6	7	8	9	10	11	12
AMBALA DIVISION.											
1	Hissar ..	28	28	960	709	23	10	7	28	20	33
2	Rohtak ..	20	20	722	104	36	8	16	19	34	18
3	Gurgaon ..	23	23	1,351	148	25	12	8	16	17	22
4	Karnal ..	24	23	1,390	140	17	17	18	32	59	13
5	Ambala ..	20	19	1,714	89	10	5	6	17	18	15
6	Simla ..	3	3	208	24	7	6	1	8	11	14
JULLUNDUR DIVISION.											
7	Kangra ..	19	19	709	709	241	172	160	168	204	256
8	Hoshiarpur ..	26	23	2,108	397	16	19	21	45	59	42
9	Jullundur ..	17	17	1,221	104	20	9	8	31	35	34
10	Ludhiana ..	15	15	840	49	8	6	5	24	38	13
11	Ferozepore ..	31	24	1,497	1,385	31	22	27	34	43	33
LAHORE DIVISION.											
12	Lahore ..	36	29	1,117	85	53	33	46	108	150	88
13	Amritsar ..	19	19	1,035	287	21	21	22	35	78	27
14	Gurdaspur ..	29	29	2,246	297	37	13	9	25	54	33
15	Sialkot ..	28	28	2,053	231	14	8	8	28	70	25
16	Gujranwala ..	22	17	1,212	60	4	4	10	14	17	14
17	Sheikhupura ..	22	16	1,212	18	2	3	3	5	6	3
RAWALPINDI DIVISION.											
18	Gujrat ..	21	17	1,436	102	13	5	10	15	31	28
19	Shahpur ..	27	27	985	162	36	21	23	18	39	46
20	Jhelum ..	15	15	888	68	5	6	3	9	12	11
21	Rawalpindi ..	14	14	1,170	903	184	155	158	137	130	127
22	Attock ..	14	11	618	30	..	2	2	5	5	5
23	Mianwali ..	16	13	375	32	4	2	3	2	4	3
MULTAN DIVISION.											
24	Montgomery ..	30	26	1,833	41	17	12	5	4	10	10
25	Lyallpur ..	24	22	969	195	96	49	17	7	32	19
26	Jhang ..	15	14	981	147	23	10	11	9	34	12
27	Multan ..	31	22	1,641	136	48	17	25	26	21	18
28	Muzaffargarh ..	25	21	848	53	15	5	2	2	5	12
29	Dera Ghazi Khan ..	25	23	713	44	47	15	27	7	8	6
	Total ..	639	577	34,052	6,749	1,053	667	661	878	1,244	980

No. XI.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

THS.							6			7			8	9
	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	
13	14	15	16	17	18	19	20	21	22	23	24	25	26	Number.
24	53	46	37	31	30	177	165	342	0·41	0·43	0·42	0·39	1	
17	57	52	47	34	24	209	153	362	0·50	0·43	0·47	0·34	2	
22	50	100	104	75	41	250	242	492	0·68	0·77	0·72	0·57	3	
69	104	82	82	101	55	364	285	649	0·80	0·76	0·78	0·40	4	
17	13	29	29	23	25	108	99	207	0·30	0·35	0·32	0·37	5	
2	8	7	4	2	3	41	32	73	1·49	2·40	1·78	1·03	6	
203	200	226	202	241	192	1,163	1,302	2,465	2·96	3·50	3·22	3·80	7	
39	60	79	71	48	31	304	226	530	0·61	0·53	0·57	0·07	8	
35	47	49	30	31	25	209	145	354	0·46	0·40	0·44	0·40	9	
4	10	23	19	12	21	106	77	183	0·33	0·31	0·32	0·44	10	
23	30	43	66	27	29	219	189	408	0·37	0·39	0·38	0·24	11	
75	81	42	49	44	35	442	362	804	0·69	0·75	0·72	0·80	12	
29	40	49	39	46	26	273	160	433	0·53	0·39	0·47	0·50	13	
33	56	71	94	96	39	308	252	560	0·66	0·66	0·66	0·90	14	
21	68	67	64	55	40	264	204	468	0·56	0·51	0·54	0·52	15	
10	22	19	16	5	6	74	67	141	0·21	0·24	0·23	0·31	16	
2	11	9	4	5	3	27	29	56	0·08	0·10	0·09	0·10	17	
24	10	6	13	16	4	90	85	175	0·21	0·22	0·21	0·22	18	
38	44	30	32	35	25	233	154	387	0·59	0·47	0·54	0·33	19	
12	19	19	12	7	9	68	56	124	0·28	0·24	0·26	0·30	20	
96	112	142	128	134	183	928	758	1,686	3·17	3·05	3·12	2·22	21	
3	3	3	6	2	1	18	19	37	0·07	0·08	0·07	0·07	22	
13	3	10	7	4	5	36	24	60	0·19	0·14	0·17	0·14	23	
5	9	8	4	11	9	64	40	104	0·16	0·12	0·15	0·13	24	
6	13	18	15	12	25	157	152	309	0·30	0·37	0·33	0·17	25	
12	20	12	14	14	7	98	80	178	0·32	0·30	0·31	0·47	26	
37	41	41	40	19	23	187	169	356	0·39	0·42	0·40	0·34	27	
9	18	23	8	11	5	46	69	115	0·15	0·27	0·20	0·16	28	
17	8	13	13	13	15	104	85	189	0·40	0·40	0·40	0·30	29	
897	1,210	1,318	1,249	1,154	936	6,567	5,680	12,247	0·59	0·61	0·60	0·54		

DEATHS REGISTERED FROM RESPIRATORY DISEASES IN THE DISTRICTS

1	2	3	4		5								
Number.	DISTRICTS.	CIRCLES OF REGISTRATION.	VILLAGES.		MONTHS.								
1	2	3	Number in each district.	Number from which Deaths from Respiratory Diseases were reported.	Number in each district.	Number from which Deaths from Respiratory Diseases were reported.	January.	February.	March.	April.	May.		
1	2	3	4	5	6	7	8	9	10	11	12		
	AMBALA DIVISION.												
1	Hissar ..	28	28	960	715	44	61	50	152	147	130		
2	Rohtak ..	20	20	722	597	229	132	149	138	167	170		
3	Gurgaon ..	23	23	1,351	602	290	174	150	120	104	105		
4	Karnal ..	24	24	1,390	700	168	96	73	163	226	124		
5	Ambala ..	20	20	1,714	1,714	644	469	449	439	615	671		
6	Simla ..	3	3	208	184	22	9	8	13	23	32		
	JULLUNDUR DIVISION.												
7	Kangra ..	19	19	709	709	419	350	345	325	391	452		
8	Hoshiarpur ..	26	26	2,108	1,126	207	179	183	149	122	89		
9	Jullundur ..	17	17	1,221	379	199	173	185	153	151	115		
10	Ludhiana ..	15	15	840	126	260	164	124	156	182	33		
11	Ferozepore ..	31	28	1,497	1,415	410	338	304	234	166	130		
	LAHORE DIVISION.												
12	Lahore ..	36	35	1,117	533	552	346	265	251	248	240		
13	Amritsar ..	19	19	1,035	963	401	290	276	295	345	279		
14	Gurdaspur ..	29	29	2,246	823	292	107	51	46	87	85		
15	Sialkot ..	28	28	2,053	1,119	395	285	261	209	256	211		
16	Gujranwala ..	22	22	1,212	247	191	109	65	43	38	26		
17	Sheikhupura ..	22	22	1,212	188	65	38	24	19	25	18		
	RAWALPINDI DIVISION.												
18	Gujrat ..	21	21	1,436	621	334	227	177	130	132	139		
19	Shahpur ..	27	27	985	531	337	268	181	158	125	88		
20	Jhelum ..	15	15	888	388	176	137	112	51	62	51		
21	Rawalpindi ..	14	14	1,170	893	362	233	157	136	84	78		
22	Attock ..	14	14	618	250	103	106	70	38	42	39		
23	Mianwali ..	16	16	375	83	66	83	32	27	21	25		
	MULTAN DIVISION.												
24	Montgomery ..	30	29	1,833	211	127	108	72	56	38	21		
25	Lyallpur ..	24	24	969	643	150	150	138	84	100	52		
26	Jhang ..	15	15	981	617	269	145	137	125	87	65		
27	Multan ..	31	30	1,641	982	264	254	154	141	127	114		
28	Muzaffargarh ..	25	24	848	141	88	64	38	34	12	27		
29	Dera Ghazi Khan ..	25	23	713	74	58	53	41	28	19	16		
	Total ..	639	630	34,052	17,574	7,122	5,148	4,271	3,913	4,142	3,625		

No. XII.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1930.

July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	6		7		8	9
									TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.		
13	14	15	16	17	18	19	20	21	22	23	24	25	26	
80	100	115	71	63	60	563	510	1,073	1·29	1·34	1·31	2·10	1	
92	98	107	102	217	230	1,017	814	1,831	2·44	2·29	2·37	2·23	2	
91	100	102	158	138	167	943	756	1,699	2·56	2·41	2·49	2·64	3	
77	122	73	177	151	45	800	695	1,495	1·76	1·85	1·80	2·12	4	
515	446	749	801	865	844	4,034	3,473	7,507	11·18	12·36	11·69	11·67	5	
28	35	45	26	18	19	166	112	278	6·01	8·40	6·79	0·47	6	
369	339	393	392	446	401	2,292	2,330	4,622	5·83	6·27	6·04	5·96	7	
88	102	144	151	150	290	1,114	740	1,854	2·23	1·73	2·00	2·61	8	
118	162	150	130	125	185	1,068	778	1,846	2·37	2·14	2·27	2·35	9	
60	72	21	27	56	51	676	530	1,206	2·12	2·13	2·12	2·83	10	
130	114	107	117	154	221	1,383	1,042	2,425	2·31	2·17	2·25	1·88	11	
116	186	155	189	263	334	1,808	1,337	3,145	2·84	2·78	2·82	3·35	12	
302	425	304	354	353	371	2,120	1,875	3,995	4·09	4·57	4·30	4·29	13	
59	57	72	139	213	246	825	629	1,454	1·76	1·65	1·71	5·15	14	
179	274	243	278	300	315	1,825	1,381	3,206	3·86	3·48	3·69	3·53	15	
32	49	32	35	48	121	541	248	789	1·55	0·90	1·27	1·92	16	
19	12	17	12	24	50	188	135	323	0·54	0·49	0·51	0·60	17	
95	60	73	88	91	157	963	740	1,703	2·20	1·92	2·07	2·49	18	
75	61	68	108	187	366	1,161	861	2,022	2·96	2·63	2·81	1·58	19	
73	59	43	56	84	127	625	406	1,031	2·60	1·73	2·17	2·22	20	
77	63	66	72	95	251	887	787	1,674	3·03	3·17	3·10	2·92	21	
45	25	47	34	48	95	380	312	692	1·45	1·27	1·36	1·46	22	
19	23	29	26	33	26	232	178	410	1·22	1·06	1·14	1·12	23	
20	11	11	24	52	72	400	212	612	1·02	0·66	0·86	0·64	24	
35	27	26	47	71	109	518	471	989	0·99	1·14	1·06	0·77	25	
51	40	48	70	109	187	801	532	1,333	2·62	2·01	2·34	1·82	26	
95	71	75	99	137	214	1,024	721	1,745	2·11	1·80	1·97	1·36	27	
15	18	24	13	24	15	225	147	372	0·73	0·57	0·65	0·43	28	
15	9	20	21	28	39	208	139	347	0·81	0·66	0·74	0·49	29	
2,970	3,160	3,359	3,817	4,543	5,608	28,787	22,891	51,678	2·57	2·46	2·52	2·66		

Mean ratio per 1,000 for previous five years.

Number.

ANNUAL FORMS

A—VACCINE

STATEMENT No. 1.—SHOWING PARTICULARS OF VACCINATION

Serial No.	Division.	3	Population of districts (excluding Municipal towns) and Municipal towns according to census of 1921.	Average population of districts per square mile.	TOTAL NUMBER OF PERSONS VACCINATED.			Average number of persons vaccinated by each vaccinator.	PRIMARY VACCINATION.				
					Males.	Females.	Total.		Total.	Under one year.	One year and under six years.	Total of all ages.	
1	2	4	5	6	7	8	9	10	11	12	13	14	
(a) Districts excluding Municipal towns.													
1 Hissar	..	730,459	157	11	23,352	15,708	39,060	3,551	29,011	23,818	4,325	28,235	
2 Rohtak	..	704,735	265	14	27,185	17,246	44,431	3,174	29,152	22,035	3,890	25,963	
3 Gurgaon	..	631,068	301	20	35,557	23,472	59,029	2,951	22,240	15,527	4,699	20,304	
4 Karnal	..	747,506	265	14	32,067	19,122	51,189	3,656	23,809	19,501	2,496	22,249	
5 Ambala	..	582,974	341	15	28,393	17,145	45,538	3,036	20,680	14,162	4,485	18,753	
6 Simla	..	14,788	405	..			No local	staff is employed.	Vaccination is performed.				
	Total	..	3,411,530	..	74	146,554	92,693	239,247	3,233	124,892	95,043	19,895	115,504
(b) Municipal towns.													
1 Hissar	..	21,415	..	1	497	217	714	714	542	413	64	504	
2 Hansi	..	15,425	..	1	629	341	970	970	709	604	35	641	
3 Bhiwani	..	33,270	..	1	489	491	980	980	974	741	141	884	
4 Sirsa	..	16,241	..	1	349	255	604	604	588	413	149	567	
5 Rohtak	..	25,240	..	1	638	564	1,202	1,202	1,202	1,152	34	1,186	
6 Jhajjar	..	10,800	..	..	467	237	704	..	477	210	85	302
7 Gohana	..	5,107	..	..	178	96	274	..	237	191	26	221
8 Bahadurgarh	..	5,955	..	..	195	103	298	..	227	207	8	215
9 Sonepat	..	12,981	..	1	382	289	671	671	522	480	32	512	
10 Beri	..	7,454	..	..	322	173	495	..	373	259	62	322
11 Rewari	..	23,129	..	1	561	475	1,036	1,036	996	870	60	961	
12 Palwal	..	9,352	..	1	234	289	523	523	414	373	13	390	
13 Ferozpur	..	4,542	..	..	129	121	250	..	218	185	5	190
14 Hodal	..	5,854	..	..	166	113	279	..	228	202	9	211
15 Ballabgarh	..	3,721	..	..	87	72	159	..	142	132	8	141
16 Faridabad	..	4,337	..	..	152	104	256	..	167	140	19	159
17 Karnal	..	22,845	..	1	2,848	1,152	4,000	4,000	1,081	674	99	804	
18 Kaithal	..	15,477	..	1	347	267	614	614	525	413	52	496	
19 Panipat	..	27,343	..	1	855	723	1,578	1,578	1,454	1,223	124	1,386	
20 Shahabad	..	11,329	..	1	428	228	656	656	402	324	19	344	
21 Thanesar	..	4,226	..	1	233	94	327	327	141	68	10	80	
22 Ambala	..	28,581	..	1	1,344	1,042	2,386	2,386	1,143	914	168	1,125	
23 Jagadhri	..	11,544	..	1	358	223	581	581	490	433	31	466	
24 Burya*	..	3,574	..	..	62	50	112	..	112	100	8	108
25 Sadhaura	..	7,630	..	1	614	331	945	945	317	245	7	258	
26 Rupar	..	7,606	..	1	297	138	435	435	252	200	11	217	
27 Simla	..	26,149	..	1	3,075	553	3,628	3,628	450	260	116	398	
	Total of Municipal towns..	..	371,127	..	17	15,936	8,741	24,677	1,452	14,383	11,426	1,395	13,088
	Total of Ambala Division	..	3,782,657	..	91	162,490	101,434	263,924	2,900	139,275	106,469	21,290	128,592
(a) Districts excluding Municipal towns.													
1 Kangra	..	761,682	77	13	48,607	32,653	81,260	6,251	23,740	15,990	5,799	21,983	
2 Hoshiarpur	..	897,772	413	13	24,757	14,653	39,410	3,032	27,816	19,404	5,124	25,307	
3 Jullundur	..	713,917	568	10	23,863	12,810	36,673	3,667	25,735	21,520	1,417	23,178	
4 Ludhiana	..	489,632	391	12	26,290	16,012	42,302	3,525	19,153	16,223	1,851	18,181	
5 Ferozepore	..	997,561	252	20	30,254	19,500	49,754	2,488	35,575	29,018	4,715	34,094	
	Total	..	3,860,564	..	68	153,771	95,628	249,399	3,668	132,019	102,155	18,906	122,743
(b) Municipal towns.													
1 Dharmalsala	..	3,065	..	..	701	111	812	..	89	57	32	89
2 Hoshiarpur	..	21,285	..	1	937	587	1,524	1,524	827	609	196	814	
3 Tanda Urmari..	..	8,362	..	..	167	165	332	..	329	271	34	305
4 Jullundur	..	59,085	..	3	2,749	2,562	5,311	1,770	2,697	2,072	227	2,572	
5 Kartarpur	..	8,512	..	1	180	190	370	370	358	272	19	303	
6 Banga	..	5,089	..	..	93	89	182	..	170	129	16	156
7 Rahon	..	5,947	..	..	76	98	174	..	149	143	..	143
8 Phillaur*	..	4,696	..	..	150	149	299	..	150	113	19	137
9 Nurmahal	..	6,845	..	..	137	101	238	..	238	174	16	206
10 Nakodar*	..	9,434	..	..	199	175	374	..	345	277	28	321
11 Ludhiana	..	51,880	..	3	1,182	1,259	2,441	814	1,389	998	234	1,242	
12 Jagraon	..	17,731	..	1	713	799	1,512	1,512	1,073	868	71	1,050	
13 Raikot	..	8,379	..	1	298	228	526	526	369	333	25	358	
14 Ferozepore	..	29,695	..	1	1,026	87							

(vaccination).

DEPARTMENT

IN THE PUNJAB PROVINCE DURING THE YEAR 1930-31

Unknown.	Re-vaccination.				Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Percentage of unknown cases to total cases.	Average annual number of persons successfully vaccinated during previous five years.		Average annual number of deaths from small-pox during previous five years.		Serial No.
	Total.	Successful.	Unknown.	Primary	Revaccination.	Primary.			Revaccination.	Number.	Ratio per 1,000.	Number.	
15	16	17	18	19	20	21	22	23	24	25	26	27	28
286	10,074	7,232	597	98·29	76·31	48·55	0·99	5·93	25,098	34·36	438	0·60	1
1,408	15,539	7,668	2,815	93·58	60·26	47·72	4·83	18·12	25,497	36·18	137	0·19	2
1,331	36,789	27,172	4,052	97·11	83·00	75·23	5·98	11·01	40,721	64·53	61	0·10	3
1,090	27,409	17,223	4,688	97·93	75·80	52·80	4·58	17·10	35,914	48·05	143	0·19	4
1,369	24,858	13,807	4,960	97·11	69·39	55·85	6·62	19·95	23,700	40·65	132	0·23	5
by the special staff,	Punjab.										1	0·07	6
5,484	114,669	73,102	17,112	96·73	74·93	55·28	4·39	14·92	150,930	44·24	912	0·27	
25	172	142	20	97·49	93·42	30·17	4·61	11·63	883	41·23	74	3·46	1
21	261	79	116	93·17	54·48	46·68	2·96	44·44	556	36·05	15	0·97	2
37	6	2	..	94·34	33·33	26·63	3·80	..	955	28·70	17	0·51	3
13	16	14	1	98·61	93·33	35·77	2·21	6·25	443	27·28	17	1·05	4
16	..	..	..	100·00	..	46·99	1·33	..	1,353	53·61	6	0·24	5
166	229	72	80	97·11	48·32	34·63	34·80	34·93	302	27·96	18	1·67	6
14	37	20	..	99·10	54·05	47·19	5·91	..	179	35·05	3	0·59	7
7	71	30	11	97·73	50·00	41·14	3·08	15·49	178	29·89	..	..	8
2	151	73	36	98·46	63·48	45·07	0·38	23·84	306	23·57	..	..	9
40	126	77	15	96·70	69·37	53·53	10·72	11·90	252	33·81	1	0·13	10
21	44	6	12	98·56	18·75	41·81	2·11	27·27	962	41·59	3	0·13	11
5	109	69	4	95·35	65·71	49·08	1·21	3·67	398	42·56	2	0·21	12
11	32	32	..	91·79	100·00	48·88	5·05	..	194	42·71	1	0·22	13
14	51	44	4	98·60	93·62	43·56	6·14	7·84	245	41·85	4	0·68	14
..	17	5	2	99·30	33·33	39·24	..	11·76	155	41·66	1	0·27	15
5	89	67	12	98·15	87·01	52·11	2·99	13·48	190	43·81	..	..	16
173	2,922	510	319	88·55	19·59	57·52	16·00	10·92	1,150	50·34	12	0·53	17
4	89	69	4	95·20	81·18	36·51	0·76	4·49	885	57·18	13	0·84	18
51	124	112	7	98·79	95·73	54·79	3·51	5·65	1,566	57·27	13	0·48	19
22	254	67	36	90·53	30·73	36·28	5·47	14·17	455	40·16	2	0·18	20
59	186	41	50	97·56	30·15	28·63	41·84	26·88	121	28·63	3	0·71	21
2	1,243	755	10	98·60	61·23	65·78	0·17	0·80	1,893	66·23	13	0·45	22
5	91	8	7	96·08	9·52	41·06	1·02	7·69	521	45·13	11	0·95	23
3	..	..	..	99·08	..	30·22	2·68	..	88	24·62	..	..	24
4	628	479	41	82·43	81·60	96·59	1·26	6·53	292	38·27	2	0·26	25
14	183	122	19	91·18	74·39	44·57	5·56	10·38	446	58·64	5	0·66	26
40	3,178	497	1,811	97·07	36·36	34·23	8·89	56·99	2,454	93·85	9	0·34	27
774	10,309	3,392	2,617	96·17	44·10	44·41	5·38	25·39	17,422	46·94	245	0·66	
6,258	124,978	76,494	19,729	96·67	72·68	54·22	4·49	15·79	168,352	44·51	1,157	0·31	
1,733	57,520	28,969	13,855	99·89	66·34	66·89	7·30	24·09	54,045	70·95	109	0·14	1
2,227	11,594	6,648	2,227	98·90	70·97	35·59	8·01	19·21	34,931	38·91	831	0·93	2
1,396	10,990	4,689	1,400	95·23	48·89	39·03	5·42	12·74	25,322	35·47	133	0·19	3
533	23,149	7,147	5,967	97·64	41·60	51·73	2·78	25·78	22,731	46·42	171	0·35	4
986	14,179	7,700	2,616	98·57	66·59	41·90	2·77	18·45	33,987	34·07	336	0·34	5
6,875	117,432	55,153	26,065	98·08	60·36	46·08	5·21	22·20	171,016	44·30	1,580	0·41	
..	723	334	50	100·00	49·63	138·01	..	6·92	442	144·21	1	0·33	1
2	697	358	73	98·67	57·37	55·06	0·24	10·47	816	38·34	14	0·66	2
10	3	2	..	95·61	66·67	36·71	3·04	..	384	45·92	21	2·51	3
96	2,614	1,892	226	98·89	79·23	75·55	3·56	8·65	3,433	58·10	22	0·37	4
12	12	7	..	87·57	58·33	36·42	3·35	..	274	32·19	7	0·82	5
8	12	6	2	96·30	60·00	31·83	4·71	16·67	134	26·33	7	1·38	6
2	25	11	4	97·28	52·38	25·90	1·34	16·00	258	43·38	7	1·18	7
7	149	42	11	95·80	30·43	38·12	4·67	7·38	324	68·99	7	1·49	8
20	2	..	2	94·50	..	30·09	8·40	100·00	193	28·20	1	0·15	9
15	29	12	3	97·27	46·15	35·30	4·35	10·34	273	28·94	10	1·06	10
86	1,052	352	125	95·32	37·97	30·72	6·19	11·88	2,001	38·57	75	1·45	11
9	439	320	30	98·68	78·24	77·27	0·84	6·83	951	53·63	17	0·96	12
8	157	127	9	99·17	85·81	57·88	2·17	5·73	391	46·66	2	0·24	13
23	616	352	26	90·97	59·66	50·55	1·79	4·22	1,579	53·17	15	0·51	14
7	273	135	43	100·00	58·70	97·36	2·17	15·75	200	43·27	..	..	15
6	194	169	1	100·00	87·56	44·03	1·99	0·52	550	52·19	28	2·66	16
114	11	..	11	98·36	..	39·12	17·17	100·00	498	36·01	9	0·65	17
8	839	661	41	95·91	80·81	81·58	1·53	4·77	715	50·55	16	1·13	18
..	3	3	..	100·00	100·00	122·36	..	..	314	35·22	8	0·90	19
433	7,870	4,783	657	97·02	66·31	56·02	3·50	8·35	13,730	47·01	267	0·91	
7,308	125,302	59,936	26,722	97·99	60·80	46·78	5·06	21·33	184,746	44·49	1,847	0·44	

Serial No.	Division.	3	4	5	6	7	8	9	10	11	12	PRIMARY VACCINATION.	
												Average number of persons vaccinated by each vaccinator.	Total.
<i>(a) Districts excluding Municipal towns.</i>													
1	Lahore Division.	Lahore	793,933	415	12	26,474	18,183	44,657	3,721	32,945	29,818	1,501	31,656
2		Amritsar	763,903	583	14	41,768	24,537	66,305	4,736	30,058	22,706	4,237	27,211
3		Gurdaspur	795,596	449	16	45,812	29,846	75,658	4,729	35,578	29,280	3,675	33,474
4		Sialkot	800,664	721	15	26,754	17,417	44,171	2,945	30,700	24,439	3,776	28,488
5		Gujranwala	561,233	270	12	15,797	10,362	26,159	2,180	20,478	15,640	2,399	18,170
6		Sheikhupura	624,295	197	11	27,868	17,760	45,628	4,148	23,893	18,888	2,306	21,355
		Total	4,339,624	..	80	184,473	118,105	302,578	3,782	173,652	140,771	17,894	160,354
<i>(b) Municipal towns.</i>													
1	Lahore Division.	Lahore	257,295	..	8	16,725	8,929	25,654	3,207	11,609	8,983	2,019	11,141
2		Chunian	7,642	..	..	435	134	569	..	213	162	23	196
3		Kasur	31,018	..	1	1,436	1,075	2,511	2,511	1,464	1,268	120	1,393
4		Khem Karan	6,152	..	..	121	117	238	..	238	208	25	233
5		Patti	10,439	..	..	308	299	607	..	444	357	43	405
6		Bhagbanpura	10,251	..	..	258	150	408	..	348	251	72	323
7		Amritsar	157,031	..	4	12,522	7,603	20,125	5,031	11,404	6,960	2,184	11,152
8		Jandiala	7,464	..	1	1,310	1,164	2,474	2,474	390	294	58	356
9		Gurdaspur	8,906	..	1	976	644	1,620	1,620	476	378	57	445
10		Dinanagar	4,047	..	..	525	121	646	..	244	219	21	244
11		Pathankot	7,353	..	..	126	144	270	..	261	210	40	250
12		Dalhousie	1,457	..	..	28	24	52	..	48	19	13	36
13		Batala	26,122	..	1	572	548	1,120	1,120	1,109	608	110	719
14		Dera Nanak	4,333	..	..	827	270	1,097	..	249	168	71	246
15		Sialkot	56,018	..	4	4,872	4,105	8,977	2,244	2,983	2,741	232	2,982
16		Pasrur	6,909	..	1	681	325	1,006	1,006	285	180	41	262
17		Narowal	5,343	..	1	400	299	699	699	230	218	11	230
18		Gujranwala	37,887	..	1	3,152	2,866	6,018	6,018	2,128	1,789	279	2,074
19		Wazirabad	18,645	..	1	923	402	1,325	1,325	668	443	145	598
20		Eminabad	5,816	..	1	112	32	144	144	76	52	10	68
21		Sharakpur	4,127	..	..	69	69	138	..	133	112	5	119
		Total of Municipal towns	674,255	..	25	46,378	29,320	75,698	3,028	35,000	25,620	5,579	33,472
		Total of Lahore Division	5,013,879	..	105	230,851	147,425	378,276	3,603	208,652	166,391	23,473	193,826
<i>(a) Districts excluding Municipal towns.</i>													
1	Rawalpindi Division.	Gujrat	778,026	322	14	31,955	15,907	47,862	3,419	30,178	23,748	3,574	27,787
2		Shahpur	662,607	161	20	15,722	9,645	25,367	1,268	19,365	11,949	4,985	17,137
3		Jhelum	451,227	172	14	37,863	13,568	51,431	3,674	17,883	12,337	2,612	16,071
4		Rawalpindi	483,045	267	13	42,448	19,575	62,023	4,771	16,169	12,566	2,966	15,650
5		Attock	490,723	123	8	21,271	12,274	33,545	4,193	16,665	11,733	3,599	15,492
6		Mianwali	328,270	66	7	14,855	9,979	24,834	3,548	13,175	12,070	553	12,746
		Total	3,193,898	..	76	164,114	80,948	245,062	3,225	113,435	84,403	18,289	104,883
<i>(b) Municipal towns.</i>													
1	Rawalpindi Division.	Gujrat	21,974	..	1	941	524	1,465	1,465	975	921	25	956
2		Jalalpur	10,792	..	..	202	166	368	..	329	278	40	318
3		Kunjah	7,240	..	..	136	134	270	..	270	215	23	240
4		Dinga	6,014	..	..	149	283	432	..	297	220	30	264
5		Sahiwal	6,582	..	1	230	183	413	413	281	115	154	272
6		Bhera	17,027	..	1	419	299	718	718	498	252	228	482
7		Miani	5,965	..	1	73	36	109	109	109	55	37	109
8		Khushab	10,009	..	..	369	232	601	..	451	265	103	372
9		Sargodha	17,728	..	1	902	487	1,389	1,389	921	628	268	906
10		Jhelum	14,422	..	1	1,691	742	2,433	2,433	567	306	114	541
11		Pind Dadan Khan	9,919	..	..	548	138	686	..	274	123	66	245
12		Rawalpindi	55,251	..	2	2,334	1,059	3,393	1,697	2,052	1,673	370	2,046
13		Murree	2,397	..	1	278	110	388	388	194	89	24	182
14		Pindigheb	9,419	..	..	186	151	337	..	333	270	49	320
15		Hazro	8,408	..	..	587	172	759	..	390	170	171	387
16		Campbellpur	*7,859	..	1	513	257	770	770	150	96	51	147
17		Mianwali	9,115	..	1	1,001	230	1,231	1,231	537			

DEPARTMENT.

IN THE PUNJAB PROVINCE DURING THE YEAR 1930-31—CONTINUED.

Unknown.	RE-VACCINATION.				PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING PREVIOUS FIVE YEARS.		AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.		Serial No.
	15	16	17	18	19	20	21	22	23	24	25	26	27
672	11,712	6,288	2,852	98·09	70·97	47·79	2·04	24·35	29,574	37·25	710	0·89	1
1,930	36,247	19,447	7,839	96·74	68·46	61·08	6·42	21·63	36,837	48·22	276	0·36	2
1,550	40,080	20,701	7,758	98·37	64·05	68·09	4·36	19·36	36,734	46·17	188	0·24	3
1,706	13,559	8,045	2,353	98·25	71·79	45·63	5·56	17·35	28,414	35·49	425	0·53	4
1,635	5,712	3,043	1,227	96·43	67·85	37·80	7·98	21·48	20,259	36·10	347	0·62	5
2,056	21,751	10,181	4,213	97·79	58·05	50·51	8·61	19·37	23,567	37·75	383	0·61	6
9,549	129,061	67,705	26,242	97·72	65·85	52·55	5·50	20·33	175,385	40·41	2,329	0·54	.
330	14,045	7,359	3,535	98·78	70·02	71·90	2·84	25·17	20,750	80·65	287	1·12	1
14	356	12	41	98·49	3·81	27·22	6·57	11·52	342	44·75	7	0·92	2
27	1,047	282	13	96·94	27·27	54·00	1·84	1·24	1,764	56·87	15	0·48	3
..	..	..	..	97·90	..	37·87	..	..	266	43·24	4	0·65	4
32	163	72	30	98·30	54·14	45·69	7·21	18·40	286	27·40	6	0·57	5
16	60	29	17	97·29	67·44	34·34	4·60	28·33	427	41·65	12	1·17	6
129	8,721	5,415	1,134	98·91	71·37	105·50	1·13	13·00	11,207	71·37	171	1·09	7
12	2,084	923	630	94·18	63·48	171·36	3·08	30·23	418	56·00	1	0·13	8
16	1,144	617	114	96·74	59·90	119·25	3·36	9·97	495	55·58	4	0·45	9
..	402	311	30	100·00	83·60	137·14	..	7·46	192	47·44	1	0·25	10
11	9	3	3	100·00	50·00	34·41	4·21	33·33	368	50·05	4	0·54	11
2	4	2	1	78·26	66·67	26·08	4·17	25·00	117	80·30	..	..	12
379	11	4	2	98·49	44·44	27·68	34·17	18·18	1,043	39·93	41	1·57	13
2	848	536	80	99·60	69·79	180·48	0·80	9·43	150	34·62	..	..	14
1	5,994	5,784	156	100·00	99·08	156·49	0·03	2·60	5,050	90·15	40	0·71	15
19	721	240	223	98·50	48·19	72·66	6·67	30·93	371	53·70	3	0·43	16
..	469	349	39	100·00	81·16	108·37	..	8·32	421	78·79	3	0·56	17
38	3,890	2,830	187	99·23	76·42	129·44	1·79	4·81	2,584	68·20	72	1·90	18
60	657	344	36	98·36	55·39	50·52	8·98	5·48	619	33·20	8	0·43	19
8	68	48	11	100·00	84·21	19·94	10·53	16·18	173	29·75	4	0·69	20
12	5	2	3	98·35	100·00	29·32	9·02	60·00	177	42·89	7	1·70	21
1,108	40,698	25,162	6,285	98·76	73·12	86·96	3·17	15·44	47,220	70·03	690	1·02	.
10,657	169,759	92,867	32,527	97·89	67·67	57·18	5·11	19·16	222,605	44·40	3,019	0·60	.
2,056	17,688	9,164	3,084	98·81	62·75	47·49	6·81	17·44	31,161	40·05	573	0·74	1
1,698	6,002	2,200	811	97·00	42·38	29·18	8·77	13·51	24,503	36·98	477	0·72	2
1,316	33,548	18,634	7,116	97·01	70·50	76·91	7·36	21·21	21,218	47·02	210	0·47	3
399	45,854	27,717	5,539	99·24	68·75	89·78	2·47	12·08	24,838	51·42	111	0·23	4
622	16,880	11,593	1,788	96·57	76·82	55·19	3·73	10·59	22,191	45·22	220	0·45	5
352	11,666	9,732	777	99·40	89·37	68·47	2·67	6·66	19,387	59·06	60	0·18	6
6,443	131,638	79,040	19,115	98·03	70·24	57·59	5·68	14·52	143,298	44·87	1,651	0·52	.
12	490	295	94	99·27	74·49	56·93	1·23	19·18	1,331	60·57	5	0·23	1
3	39	13	9	97·55	43·33	30·67	0·91	23·08	471	43·64	15	1·39	2
20	..	..	..	96·00	..	33·15	7·41	..	380	52·49	5	0·69	3
25	135	60	35	97·06	60·00	53·87	8·42	25·93	218	36·25	1	0·17	4
2	132	58	4	97·49	45·31	5·01	0·71	3·03	317	48·16	13	1·98	5
3	220	132	..	97·37	60·00	36·06	0·60	..	900	52·86	24	1·41	6
..	..	..	..	100·00	..	18·27	..	..	132	22·13	10	1·68	7
69	150	24	34	97·38	20·69	39·56	15·30	22·67	647	64·64	14	1·40	8
8	468	212	75	99·23	53·94	63·06	0·87	16·03	1,249	70·45	6	0·34	9
17	1,866	1,195	266	98·36	74·69	120·37	3·00	14·26	1,152	79·88	5	0·35	10
16	412	208	105	94·96	67·75	45·67	5·84	25·49	343	34·58	1	0·10	11
2	1,341	594	162	99·80	50·38	47·78	0·10	12·08	3,951	71·51	38	0·69	12
7	194	110	8	97·33	59·14	121·82	3·61	4·12	183	76·35	..	..	13
10	4	3	1	99·07	100·00	34·29	3·00	25·00	397	42·15	1	0·11	14
..	369	353	15	99·23	99·72	88·01	..	4·07	224	26·64	10	1·19	15
1	620	353	92	98·66	66·86	63·62	0·67	14·84	714	194·60	2	0·55	16
19	694	617	46	99·22	95·22	124·08	3·54	6·63	759	83·27	1	0·11	17</

STATEMENT No. I.—SHOWING PARTICULARS OF VACCINATION

1 Serial No.	2 Division.	3	4 Population of districts (excluding Municipal towns) and Municipal towns according to census of 1921.	5 Average population of districts per square mile.	6 Average number of vaccinators employed throughout the year.	TOTAL NUMBER OF PERSONS VACCINATED.			10 Average number of persons vaccinated by each vaccinator.	PRIMARY VACCINATION.			
						7 Males.	8 Females.	9 Total.		11 Total.	12 Under one year.	13 One year and under six years.	14 Total of all ages.
<i>(a) Districts excluding Municipal towns.</i>													
1 Montgomery	..	683,051	154	24	22,089	17,006	39,095	1,629	35,671	29,744	3,330	33,757	
2 Lyallpur	..	900,184	339	22	32,257	19,549	51,806	2,355	37,460	29,115	3,768	33,284	
3 Jhang	..	522,907	168	12	21,958	15,252	37,210	3,101	18,073	13,184	2,224	16,384	
4 Multan	..	788,282	149	23	35,523	24,821	60,344	2,624	32,817	20,722	5,875	29,355	
5 Muzaaffargarh	..	544,459	94	10	41,786	30,843	72,629	7,263	21,306	13,264	3,844	20,119	
6 Dera Ghazi Khan	..	428,061	88	17	92,145	57,777	149,922	8,819	62,196	30,653	15,946	55,834	
	Total	..	3,866,944	..	108	245,758	165,248	411,006	3,806	207,523	136,682	34,987	188,733
<i>(b) Municipal towns.</i>													
MULTAN DIVISION.	Montgomery	..	14,601	..	1	1,268	701	1,969	1,969	1,035	534	129	772
	Pakpattan	..	7,218	..	1	493	160	653	653	332	256	70	331
	Lyallpur	..	28,136	..	2	715	1,166	1,881	941	996	704	288	994
	Gojra	..	7,622	..	1	645	352	997	997	256	179	71	252
	Kamalia	..	8,916	..	..	241	123	364	..	287	166	26	201
	Jhang-Maghiana	..	30,139	..	1	2,154	660	2,814	2,814	1,154	668	271	950
	Chiniot	..	17,513	..	1	402	282	684	684	567	192	318	513
	Multan	..	89,162	..	4	8,559	4,796	13,355	3,339	4,119	2,617	922	3,940
	Shujabad	..	6,730	..	1	125	87	212	212	154	126	17	146
	Muzaaffargarh	..	5,386	..	..	212	186	398	..	261	90	120	225
	Khangarh	..	3,184	..	..	38	34	72	..	72	58	11	69
	Alipur	..	3,434	..	..	102	62	164	..	118	104	14	118
	Leiah	..	8,476	..	..	139	128	267	..	253	193	56	251
	Karor	..	3,539	..	..	64	63	127	..	88	69	19	88
	Dera Ghazi Khan	..	20,731	..	1	683	466	1,149	1,149	836	698	108	812
	Jampur	..	7,317	..	..	1,236	634	1,870	..	630	361	69	442
	Dajal	..	5,775	..	1	1,873	982	2,855	..	1,136	685	219	1,021
	Rajanpur	..	3,964	..	..	486	145	631	..	309	189	81	291
	Kot Mithan	..	3,204	..	..	70	53	123	..	120	71	21	97
	Total of municipal towns	..	275,047	..	14	19,505	11,080	30,585	2,185	12,723	7,960	2,830	11,513
	Total of Multan Division	..	4,141,991	..	122	265,263	176,328	441,591	3,620	220,246	144,642	37,817	200,246
	Total of districts and municipal staff.	..	20,525,986	211	490	998,577	616,273	1,614,850	3,296	835,029	619,715	123,394	770,543
	Total of special staff	..	..	..	17	45,450	31,333	76,783	4,528	22,019	8,411	9,162	19,155
	Total of Cantonment staff	..	130,124	..	7	19,464	9,055	28,519	4,074	7,016	4,902	1,432	6,622
	Total of Dispensary staff	..	..	..	..	2,340	1,360	3,700	..	1,711	1,221	279	1,557
	Political staff, Dera Ghazi Khan.	..	26,758	..	1	2,669	1,834	4,503	4,503	2,593	1,065	836	2,458
	GRAND TOTAL	..	20,682,868	211	515	1,068,500	659,855	1,728,355	3,356	868,368	635,314	135,103	800,335
									(a)				(b)

(a) Difference between number of operations and number of persons

(b) These figures include 29,918 primary successful vaccination of persons

SUM

			TOTAL NUMBER OF PERSONS VACCINATED.		TOTAL NUMBER OF OPERATIONS PERFORMED.		PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.	
			Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
By District, Cantonment and special staff (Statement No. I).			863,337	856,815	864,064	856,815	97.97	68.76
By Dispensary staff (Statement No. I)	..		1,711	1,989	1,711	1,989	94.65	66.48
By other agencies, if any (Political staff, Dera Ghazi Khan).			2,593	1,910	2,593	1,910	98.24	89.83
Total	..		867,641	860,714	868,368	860,714	97.96	68.80

DEPARTMENT.

IN THE PUNJAB PROVINCE DURING THE YEAR 1930-31—CONCLUDED.

Unknown. 15	RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		Persons successfully vaccinated per 1,000 of population. 21	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES. 22	AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCI- NATED DURING PRE- VIOUS FIVE YEARS. 24		AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YRS. 26		Ratio per 1,000. 27	Serial No. 28
	Total. 16	Successful. 17	Unknown. 18	Primary. 19	Re-vaccination. 20			Number. 25	Ratio per 1,000. 27				
1,646	3,424	1,272	1,262	99·21	58·83	51·28	4·61	36·86	29,621	43·37	880	1·29	1
3,471	14,346	8,252	3,164	97·93	73·80	46·14	9·27	22·05	42,304	46·99	600	0·67	2
1,415	19,214	15,074	2,226	98·36	88·73	60·16	7·83	11·59	26,959	51·56	85	0·16	3
2,945	27,527	14,185	5,913	98·27	65·63	55·23	8·97	21·48	38,461	48·79	279	0·35	4
1,166	51,323	37,687	6,310	99·90	83·72	106·17	5·47	12·29	41,493	76·21	162	0·30	5
6,125	87,794	47,702	17,223	99·58	67·59	241·87	9·85	19·62	48,942	114·33	226	0·53	6
16,768	203,628	124,172	36,098	98·94	74·12	80·92	8·08	17·73	227,780	58·90	2,232	0·58	
118	934	348	253	84·19	51·10	76·71	11·40	27·09	1,150	78·76	12	0·82	1
1	321	286	18	100·00	94·39	85·48	0·30	5·61	535	74·12	10	1·39	2
1	885	786	36	99·90	92·58	63·26	0·01	4·07	4,204	149·42	35	1·24	3
3	741	660	39	99·60	94·02	119·65	1·17	5·26	584	76·62	4	0·52	4
69	77	19	43	92·20	55·88	24·67	24·01	55·84	586	65·72	18	2·02	5
199	1,660	723	306	99·48	53·40	55·51	17·24	18·43	1,984	65·83	27	0·90	6
26	117	48	13	94·82	46·15	32·03	4·59	11·11	705	40·26	34	1·94	7
183	9,236	7,208	825	98·85	85·70	125·03	3·23	8·93	4,877	54·70	79	0·89	8
1	58	52	..	95·42	89·66	29·42	0·65	..	309	45·91	5	0·74	9
35	137	110	21	99·56	94·83	62·20	13·41	15·33	336	62·38	2	0·37	10
3	..	..	..	100·00	..	21·67	4·17	..	131	41·14	..	..	11
..	46	36	10	100·00	100·00	44·85	..	21·74	316	92·02	5	1·46	12
2	14	9	2	100·00	75·00	30·67	0·79	14·29	711	83·89	..	..	13
..	39	39	..	100·00	100·00	35·89	..	..	305	86·18	..	..	14
17	313	194	25	99·15	67·36	48·53	2·03	7·99	2,038	98·31	3	0·14	15
177	1,240	345	731	97·57	67·78	107·56	28·10	58·95	564	77·08	..	..	16
83	1,719	839	440	96·96	65·60	322·08	7·31	25·60	1,500	259·74	1	0·17	17
18	322	99	100	100·00	44·59	98·39	5·83	31·06	851	214·68	2	0·50	18
23	3	1	2	100·00	100·00	30·59	19·17	66·67	675	210·67	1	0·31	19
909	17,862	11,802	2,864	97·45	78·69	84·77	7·14	16·03	22,361	79·54	238	0·85	
17,677	221,490	135,974	38,962	98·85	74·49	81·17	8·03	17·59	250,141	60·30	2,470	0·60	
48,583	780,495	448,723	138,010	97·98	69·84	59·40	5·82	17·68	983,030	47·89	10,313	0·50	
2,397	54,817	25,219	11,005	97·62	57·56	..	10·89	20·08	55,892	..	..	..
260	21,503	9,135	5,237	98·02	56·16	121·09	3·71	24·35	7,715	59·29	15	0·12	
66	1,989	1,164	238	94·65	66·48	..	3·86	11·97	3,600	..	..	..
91	1,910	1,493	248	98·24	89·83	147·66	3·51	12·98			Not available.		
51,397	860,714	485,734	154,738	97·96	68·80	62·18	5·92	17·98	1,050,237	50·78	10,328	0·50	

vaccinated equal 727 which represents secondary operations.
of six years and over six years of age.

MARY.

AVERAGE NUMBER OF PERSONS VACCINATED BY EACH VACCINATOR.	NUMBER OF CHILDREN SUCCESSFULLY VACCINATED.		Ratios of successful vaccinations per 1,000 of population.	Total cost of Department.	Average cost of each successful case.	REMARKS.
	Persons vacci- nated by each vaccinator.	Under one year.				
514	3,347	633,028	133,988	61·94	3,34,394 6 4	0 4 2
..	..	1,221	279	..	..	..
1	4,503	1,065	836	147·66	277 9 0	0 1 1
515	3,356	635,314	135,103	62·18	3,34,671 15 4	0 4 2

APPENDIX TO STATEMENT No. I.

STATEMENT SHOWING THE DETAILS OF THE VACCINATION OPERATIONS PERFORMED BY THE SPECIAL AND CANTONMENT STAFFS ACCORDING TO LOCALITIES DURING THE YEAR 1930-31.

1	2	3	4	5	6						7			8		9	10	
No.	Districts.	Name of localities.	Average number of vaccinators employed throughout the year.	Total number of persons vaccinated.	PRIMARY VACCINATION.						RE-VACCINATION.			PERCENTAGE OF SUCCESS-FULL CASES IN WHICH RESULTS WERE KNOWN.		PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		
1	2	3	4	5	Total.	Under one year.	One year and under six years.	Six years and over six years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	No.

THE VACCINATIONS PERFORMED, BY THE SPECIAL STAFF ARE INCLUDED IN STATEMENT No. I.

1	Kangra	Mandi State ..	..	21,371	3,499	789	1,898	557	3,244	235	17,872	10,408	3,303	..	..	..	..	1
2		Suket State ..	..	4,950	1,407	860	456	9	1,325	72	3,543	1,052	414	..	..	..	..	2
3		Nalagarh State ..	..	1,691	1,326	885	262	10	1,157	150	365	253	22	..	..	..	..	3
4		Bilaspur State ..	..	6,969	799	438	262	17	717	44	6,175	2,840	1,478	..	..	..	..	4
5		Rawingarh State ..	..	162	90	..	41	49	90	..	72	64	..	..	..	..	..	5
6		Tharoeh State ..	..	543	370	..	68	164	232	138	173	30	81	..	..	..	..	6
7		Keonthal State ..	..	7,461	1,587	62	984	281	1,327	253	5,874	2,552	1,548	..	..	..	..	7
8	Simla	Darkoti State ..	..	26	6	..	1	5	6	..	20	13	7	..	..	..	..	8
9		Dhadi State ..	..	60	37	..	17	20	37	..	23	4	18	..	..	..	..	9
10		Bhajji State ..	..	580	580	89	299	62	450	126	..	..	..	..	..	..	..	10
11		Ratesh State ..	..	89	29	..	..	2	2	27	60	21	21	..	..	..	..	11
12		Bhagal State ..	..	333	38	14	9	3	26	12	295	48	108	..	..	..	..	12
13		Bhagat State ..	..	368	368	67	207	3	277	70	..	..	..	..	..	..	..	13
14		Khaneti State ..	..	442	375	1	137	116	254	119	67	28	14	..	..	..	..	14
15	Ambala	Simla Tahsil ..	..	109	108	65	11	..	76	24	1	1	..	..	..	..	..	15
16		Kotgarh Sub-Tahsil ..	..	192	185	42	83	15	140	43	7	1	5	..	..	..	..	16
17		Kothai Tahsil ..	..	458	288	14	231	8	253	34	170	43	58	..	..	..	..	17
18		Gurgaon Pataudi State ..	..	639	666	495	45	..	540	86	3	..	..	..	..	..	..	18
19		Sirnoor State ..	..	19,837	7,041	2,643	3,240	141	6,024	772	12,798	3,941	3,115	..	..	..	..	19
20		Kalsia State ..	..	861	731	558	89	5	652	67	142	37	10	..	..	..	..	20
21		Rohtak Dujana State ..	..	1,170	1,136	634	391	16	1,041	70	38	13	6	..	..	..	..	21
22	Attock	Talagang Tahsil ..	..	4,040	226	117	97	9	223	3	3,814	2,671	348	..	..	..	..	22
23	Multan	Multan town ..	..	2,139	636	344	199	70	613	16	1,503	655	173	..	..	..	..	23
24	Gurdaspur	Batala Town ..	..	1,760	245	150	52	9	211	33	1,515	378	268	..	..	..	..	24
25	Rawalpindi	Murree Town ..	..	392	197	110	69	10	189	3	195	110	8	..	..	..	..	25
26		Murree Cantonment ..	..	141	49	34	14	1	49	..	92	56	..	..	..	..	..	26
		Total ..	17	76,783	22,019	8,411	9,162	1,582	19,155	2,397	54,817	25,219	11,005	97.62	57.56	10.89	20.08	

THE VACCINATIONS PERFORMED IN CANTONMENTS BY THE DISTRICT STAFF ARE INCLUDED IN STATEMENT No. I.

1	Attock	Campbellpur ..	..	30	30	22	6	..	28	1	..	..	..	..	..	..	..	1
		Total ..	..	30	30	22	6	..	28	1	..	..	..	96.55	..	3.33	..	

THE VACCINATIONS IN CANTONMENTS WHICH ENTERTAIN THEIR OWN VACCINATORS ARE SHOWN SEPARATELY IN STATEMENT No. I.

1	Ambala	Ambala ..	1	1,338	1,247	1,094	143	4	1,241	1	91	26	52	..	..	..	..	1
2	Kangra	Dharamsala ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
3	Jullundur	Jullundur ..	1	12,621	289	141	130	11	282	7	12,332	6,132	252	..	..	..	..	3
4	Ferozepore	Ferozepore ..	1	735	686	581	70	12	663	2	49	28	2	..	..	..	..	4
5	Lahore	Lahore ..	1	7,997	936	409	247	34	690	176	7,061	1,625	4,696	..	..	..	..	5
6	Amritsar	Amritsar* ..	..	68	18	15	3	..	18	..	50	21	..	..	..	..	..	6
7	Sialkot	Sialkot ..	1	1,020	206	134	61	8	203	3	814	563	144	..	..	..	..	7
8	Jhelum	Jhelum* ..	..	720	368	322	17	12	351	12	352	258	34	..	..	..	..	8
9	Rawalpindi	Rawalpindi ..	1	3,336	2,819	2,004	616	115	2,735	57	517	362	34</td					

A—VACCINE DEPARTMENT.

STATEMENT No. II—SHOWING THE COST OF THE DEPARTMENT IN THE PUNJAB PROVINCE DURING THE YEAR 1930-31.

STATEMENT No. II.—SHOWING THE COST OF THE DEPARTMENT IN THE

1	2	3	4									
No.	Districts.	Super-vising Officers.	EXPENDITURE.									
			Pay.	Super-inten-dents of Vaccination.	Pay	Vaccine-tors.	Pay.	Peons, etc.	Pay.	Total pay of establishment.	Travelling allowances.	
1	2	3	4	5	6	7	8	9	10	11	12	
			Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.	
1	Hissar	..	..	..	1	669 11 0	15	6,563 7 0	4	266 15 0	7,500 1 0	1,272 7 0
2	Rohtak	..	..	..	1	790 0 0	16	4,855 13 10	..	..	5,645 13 10	234 1 0
3	Gurgaon	..	..	..	1	568 0 0	22	6,596 2 0	4	444 10 0	7,608 12 0	571 9 0
4	Karnal	..	..	..	1	752 9 0	18	6,767 10 0	3	295 4 0	7,815 7 0	485 9 0
	Ambala	..	..	..	1	636 0 0	20	6,458 11 8	3	298 14 9	7,393 10 5	366 15 0
6	Simla	..	..	..	..	..	1	a)728 0 0	1	180 0 0	908 0 0	..
7	Kangra	..	..	..	1	892 7 0	13	4,356 11 0	..	..	5,249 2 0	375 5 0
8	Hoshiarpur	..	..	..	1	622 2 0	14	4,220 0 0	..	..	4,842 2 0	762 0 0
9	Jullundur	..	..	..	1	840 0 0	15	5,464 2 2	3	456 14 0	6,761 0 2	421 1 0
10	Ludhiana	..	..	..	2	1,528 0 0	17	5,076 0 0	2	180 0 0	6,784 0 0	490 1 0
11	Ferozepore	..	..	..	1	640 0 0	27	8,827 0 0	4	334 8 0	9,801 8 0	531 12 0
12	Lahore	..	..	..	2	1,777 12 0	22	6,698 1 8	3	543 12 0	9,019 9 8	1,844 5 0
13	Amritsar	..	..	..	2	1,410 0 0	19	6,953 7 0	8	1,932 0 0	10,295 7 0	682 3 0
14	Gurdaspur	..	..	..	1	991 5 0	18	5,962 15 0	2	233 0 0	7,187 4 0	420 3 0
15	Sialkot	..	..	..	1	1,124 6 0	22	5,597 4 0	4	479 8 0	7,201 2 0	1,044 14 0
16	Gujranwala	..	..	..	1	890 0 0	15	5,548 9 0	2	337 0 0	6,775 9 0	414 12 0
17	Shelkhupura	..	..	..	1	972 0 0	11	3,427 9 3	..	..	4,399 9 3	676 9 0
18	Gujrat	..	..	..	1	810 0 0	15	6,012 11 0	..	..	6,822 11 0	356 9 0
19	Shahpur	..	..	..	2	910 12 0	24	5,917 15 0	1	96 0 0	6,924 11 0	380 14 0
20	Jhelum	..	..	..	1	480 0 0	15	4,020 1 0	1	90 0 0	4,590 1 0	661 0 0
21	Rawalpindi	..	..	..	1	664 0 0	17	6,164 10 0	3	636 0 0	7,464 10 0	300 0 0
22	Attock	..	..	..	1	722 5 0	9	2,851 0 0	1	..	3,573 5 0	1,040 0 0
23	Mianwali	..	..	..	1	972 0 0	9	2,486 13 9	..	..	3,458 13 9	448 6 0
24	Montgomery	..	..	..	5	2,436 0 0	26	6,365 15 0	1	228 0 0	9,029 15 0	937 1 0
25	Lyallpur	..	..	..	1	420 0 0	25	9,217 9 6	3	426 0 0	10,063 9 6	705 8 0
26	Jhang	..	..	..	1	409 8 0	14	3,657 7 0	2	168 0 0	4,234 15 0	392 4 0
27	Multan	..	..	..	2	1,087 11 0	29	5,836 7 0	7	701 0 0	7,625 2 0	1,006 10 0
28	Muzaffargarh	..	..	..	1	660 0 0	10	3,464 10 0	..	..	4,124 10 0	523 14 0
29	Dera Ghazi Khan	..	..	..	1	1,020 0 0	19	5,492 6 0	1	84 0 0	6,596 6 0	300 0 0
	Total	..	..	..	37	25,696 8 0	497	1,55,589 0 10	63	8,411 5 9	1,89,696 14 7	17,645 14 0
	Special Staff, Punjab	(e) 1	16,809 12 0	2	2,040 0 0	15	5,105 2 0	2	336 8 0	(e) 26,398 10 0	3,463 6 0	
	Vaccine Institute	..	(d) 1	12,157 2 0	..	..	(f) 8	4,343 8 0	3	713 7 0	(e) 21,665 3 0	1,982 13 0
	Political Staff of Dera Ghazi Khan.	..	..	..	..	..	1	(g) ..	..	..	223 9 0	
	Total	..	2	28,966 14 0	2	2,040 0 0	24	9,448 10 0	5	1,049 15 0	48,063 13 0	5,669 12 0
	GRAND TOTAL	..	2	28,966 14 0	39	27,736 8 0	521	1,65,037 10 10	68	9,461 4 9	2,37,760 11 7	23,315 10 0

Average cost is calculated on the total
 (a) Including cost of 1 male vaccinator
 (b) Including Rs. 72 on account of
 (c) Assistant Director of Public Health
 (d) Superintendent, Punjab Vaccine
 (e) Including Rs. 6,558-6-0 on account
 (f) Including 2 Laboratory Assistants
 (g) The pay of the vaccinator is held

DEPARTMENT.

PUNJAB PROVINCE DURING THE YEAR 1930-31:

Contingencies.	Total cost.	PAID FROM							Number of successful vaccinations and re-vaccinations.	Average cost of each successful case.	No.
		Imperial Funds.	Provincial Funds.	Local Funds.	Municipal Funds.	Cantonment Funds.	Total.				
13	14	15	16	17	18	19	20	21	22	23	
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
2,786 3 0	11,558 11 0	..	..	9,422 8 0	2,136 3 0	..	11,558 11 0	38,300	0 4 10	1	
1,942 13 3	7,822 12 1	..	..	6,796 13 10	1,025 14 3	..	7,822 12 1	36,661	0 3 5	2	
2,260 11 6	10,441 0 6	..	..	9,378 0 0	1,063 0 6	..	10,441 0 6	49,751	0 3 4	3	
1,586 9 0	9,887 9 0	..	370 3 0	6,889 0 0	2,628 6 0	..	9,887 9 0	43,381	0 3 8	4	
2,017 14 6	9,778 7 11	..	408 10 0	7,434 10 0	1,398 12 2	536 7 9	9,778 7 11	37,435	0 4 2	5	
359 15 0	1,267 15 0	..	..	..	1,267 15 0	..	1,267 15 0	1,145	1 1 9	6	
3,563 7 0	9,187 14 0	..	..	9,187 14	..	..	9,187 14 0	51,375	0 2 10	7	
2,331 5 0	7,935 7 0	..	..	7,528 7 0	407 0 0	..	7,935 7 0	33,434	0 3 10	8	
1,412 15 5	8,595 0 7	..	..	6,017 6 2	2,403 10 5	174 0 0	8,595 0 7	40,089	0 3 5	9	
2,280 0 0	9,554 1 0	..	208 9 0	7,297 6 0	2,048 2 0	..	9,554 1 0	28,777	0 5 4	10	
1,692 11 0	12,025 15 0	..	..	8,811 12 0	3,041 11 0	172 8 0	12,025 15 0	47,686	0 4 0	11	
2,435 3 3	13,299 1 11	..	..	6,501 10 6	6,373 7 5	424 0 0	13,299 1 11	61,704	0 3 5	12	
4,822 6 8	15,800 0 8	..	215 10 0	10,450 0 8	5,132 6 0	2 0 0	15,800 0 8	64,543	0 3 11	13	
2,323 3 6	9,930 12 6	..	173 12 0	8,748 0 0	1,009 0 6	..	9,930 12 6	57,588	0 2 9	14	
2,460 15 0	10,706 15 0	..	222 1 0	8,074 4 0	2,188 11 0	221 15 0	10,706 15 0	47,146	0 3 8	15	
1,061 15 0	8,252 4 0	..	..	6,596 7 0	1,655 13 0	..	8,252 4 0	27,175	0 4 10	16	
1,622 3 0	6,698 5 3	..	..	5,741 10 6	956 10 9	..	6,698 5 3	31,657	0 3 5	17	
1,879 5 6	9,058 9 6	..	..	8,381 9 6	677 0 0	..	9,058 9 6	39,097	0 3 8	18	
665 14 0	7,971 7 0	..	..	5,887 7 0	2,084 0 0	..	7,971 7 0	21,904	0 5 10	19	
1,627 6 9	6,878 7 9	..	30 1 0	6,236 8 3	611 14 6	..	6,878 7 9	37,503	0 2 11	20	
1,797 12 0	9,562 6 0	..	..	6,692 7 0	1,817 0 0	1,052 15 0	9,562 6 0	49,396	0 3 1	21	
(b) 1,071 0 0	5,684 5 0	..	99 5 0	5,585 0 0	..	..	5,684 5 0	28,648	0 3 2	22	
779 14 0	4,687 1 9	..	3 12 0	4,460 0 0	215 5 9	8 0 0	4,687 1 9	24,169	0 3 1	23	
1,734 8 6	11,701 8 6	..	..	10,402 8 6	1,299 0 0	..	11,701 8 6	36,766	0 5 1	24	
3,240 1 6	14,009 3 0	..	62 3 0	11,337 3 0	2,609 13 0	..	14,009 3 0	44,448	0 5 1	25	
1,230 2 6	5,857 5 6	..	..	5,689 5 6	168 0 0	..	5,857 5 6	33,692	0 2 9	26	
2,885 15 0	11,517 11 0	..	130 10 0	8,593 10 0	2,727 5 0	66 2 0	11,517 11 0	55,125	0 3 4	27	
1,702 15 0	6,351 7 0	..	59 0 0	6,189 3 0	103 4 0	..	6,351 7 0	58,751	0 1 9	28	
1,793 0 11	8,689 6 11	..	..	7,736 10 1	952 12 10	..	8,689 6 11	1,07,677	0 1 3	29	
57,368 6 9	2,64,711 3 4	..	1,983 12 0	2,12,067 5 6	48,002 2 1	2,657 15 9	2,64,711 3 4	12,35,023	0 3 5		
832 5 0	30,694 5 0	..	30,694 5 0	..	..	..	30,694 5 0	44,374	0 11 1		
15,340 14 0	38,988 14 0	..	38,988 14 0	..	..	..	38,988 14 0	..	..
54 0 0	277 9 0	277 9 0	..	..	..	..	277 9 0	3,951	0 1 1		
16,227 3 0	69,960 12 0	277 9 0	69,683 3 0	..	..	..	69,960 12 0	48,325	..		
73,595 9 9	3,34,671 15 4	277 9 0	71,666 15 0	2,12,067 5 6	48,002 2 1	2,657 15 9	3,34,671 15 4	12,83,348	0 4 2		

number of successful vaccinations and re-vaccinations performed by the District, Municipal, Special, Cantonment and Political Staff Dera Ghazi Khan,—vide Statement No. I, from 30th April 1930 to 31st October 1930 and 1 female vaccinator from 1st October 1930 to 2nd November 1930 at Rs. 30 per mensem each.
pay of 1 peon for 6 months.

Punjab (Technical) Vaccination Institute.

of pay of 6 clerks.

and 1 Veterinary Assistant.

up pending sanction of the Punjab Government.

COMPARATIVE STATEMENT NO. III.—SHOWING THE NUMBER OF PERSONS PRIMARILY VACCINATED AND THE NUMBER OF THOSE PERSONS WHO WERE SUCCESSFULLY VACCINATED IN THE PUNJAB IN EACH OF THE UNDERMENTIONED OFFICIAL YEARS.

PERSONS PRIMARILY VACCINATED.

ESTABLISHMENT.

Establishment.		Persons Primarily Vaccinated.											
	Average total number.	1867 to 1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.
Government	103,733	97,369	23,628	19,230	21,834	17,634	22,145	17,217	28,648	24,633	26,184	23,987	35,201
District, Municipal and Cantonment Staff	422,342	398,532	625,884	572,893	602,081	557,660	625,957	570,328	644,735	597,630	643,867	597,402	708,116
Indian States	1,630	1,269	..	..	..	..	..	..	..	..	..	..	..
Dispensaries	14,510	11,324	1,426	1,294	1,164	1,064	951	841	820	723	589	573	3,845
Political Staff (Dera Ghazi Khan)	542,215	508,694	650,938	594,417	625,079	576,358	649,053	588,386	674,203	622,986	670,640	621,962	747,162
Total	542,215	508,694	650,938	594,417	625,079	576,358	649,053	588,386	674,203	622,986	670,640	621,962	747,162

YEAR ENDING 31ST MARCH.¹

Establishment.		Persons Primarily Vaccinated.											
	Average number successfully vaccinated.	1867 to 1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.
Government	97,369	23,628	19,230	21,834	17,634	22,145	17,217	28,648	24,633	26,184	23,987	35,201	31,475
District, Municipal and Cantonment Staff	572,893	625,884	602,081	557,660	625,957	570,328	644,735	597,630	643,867	597,402	708,116	636,195	701,513
Indian States	1,269	..	..	..	..	..	..	..	..	..	..	..	..
Dispensaries	11,324	1,426	1,294	1,164	1,064	951	841	820	723	589	573	3,845	3,473
Political Staff (Dera Ghazi Khan)	508,694	650,938	594,417	625,079	576,358	649,053	588,386	674,203	622,986	670,640	621,962	747,162	765,094
Total	542,215	508,694	650,938	594,417	625,079	576,358	649,053	588,386	674,203	622,986	670,640	621,962	747,162

NOTE.—The figures from 1867 to 1902 are taken from Annual Vaccination Reports of the Province as constituted during that period.

STATEMENT No. IV—SHOWING TOTAL NUMBER OF PRIMARY AND RE-VACCINATIONS PERFORMED AND NUMBER INSPECTED BY CIVIL SURGEONS, DISTRICT HEALTH OFFICERS AND SUPERINTENDENTS OF VACCINATION OR OTHER INSPECTING OFFICERS, THE PERCENTAGES OF THOSE INSPECTED, TOGETHER WITH THE PERCENTAGES OF CASES FOUND SUCCESSFUL BY THEM, AS CONTRASTED WITH PERCENTAGES REPORTED BY THE VACCINATORS IN EACH DISTRICT OF THE PUNJAB DURING THE YEAR 1930-31.

No.	Districts.	Total Number Inspected.		Percentage of Inspections to Total Number Vaccinated.		Percentage of Cases Found Successful to Total Vaccinated.		Percentage of Inspections Number Inspected.		Percentage of Cases Found Success Reported by Vaccinators.		No.	
		By District Health Officers, Civil Surgeons and Medical Officers of Health.		By Superintendents of Vaccination.		By District Health Officers, Civil Surgeons and Medical Officers of Health.		By Superintendents of Vaccination.		By District Health Officers, Civil Surgeons and Medical Officers of Health.			
		Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.		
1	Hissar	32,008	10,577	1,614	4,614	9·14	15·26	31·51	43·62	91·47	67·56	1	
2	Rohtak	32,190	16,153	10,845	26,785	5,326	12,865	33·69	32·97	83·21	79·64	2	
3	Gurgaon	23,847	36,723	2,469	7,548	2,815	7,774	10·31	20·55	21·17	92·95	3	
4	Karnal	27,380	30,984	2,602	15,312	2,113	10,513	9·50	6·82	55·92	33·93	4	
5	Ambala	24,406	27,940	2,027	1,212	3,604	2,082	8·31	4·34	14·77	7·45	5	
6	Simla	450	3,178	..	..	..	..	..	..	..	..	6
7	Kangra	23,829	58,243	2,279	929	14,603	28,413	9·56	1·60	61·28	48·78	7	
8	Hoshiarpur	28,972	12,294	6,011	2,306	13,183	4,330	20·75	18·76	45·50	35·22	8	
9	Jullundur	30,170	26,310	5,173	2,354	3,462	3,233	17·15	8·95	11·47	12·29	9	
10	Ludhiana	21,998	25,290	6,775	5,798	13,568	11,833	30·80	22·93	61·68	46·79	10	
11	Ferozepore	40,637	16,223	9,874	1,895	20,783	6,674	24·30	11·68	51·14	41·14	11	
12	Lahore	34,197	34,444	10,835	..	3,419	41,753	15,487	22·48	9·93	86·63	44·96	12
13	Anritsar	41,870	47,102	5,593	2,481	10,744	4,492	13·36	5·27	25·66	9·54	13	
14	Gurdaspur	38,412	43,402	2,383	1,067	2,492	1,423	6·20	2·46	6·50	3·28	14	
15	Sialkot	34,426	21,575	2,842	874	11,582	2,924	8·26	4·05	33·64	13·55	15	
16	Gujranwala	23,359	10,342	1,293	692	4,403	872	5·54	6·69	18·85	8·43	16	
17	Sheikhupura	24,201	22,125	2,254	1,712	5,798	3,762	9·32	7·74	23·96	17·00	17	
18	Gujrat	32,157	18,610	5,795	2,754	3,254	8,375	18·02	14·80	100·27	45·00	18	
19	Shahpur	21,806	7,637	3,422	485	5,437	559	15·69	6·35	24·93	7·32	19	
20	Jhelum	19,092	36,178	892	939	5,731	7,192	4·67	2·60	30·02	19·88	20	
21	Rawalpindi	21,234	47,906	2,063	1,679	5,706	14,111	9·72	3·50	26·87	29·46	21	
22	Attock	17,538	17,873	4,590	7,845	7,480	10,900	26·17	43·89	42·65	60·99	22	
23	Mianwali	14,162	12,636	1,133	2,138	8,456	7,277	8·00	16·92	59·71	57·59	23	
24	Montgomery	35,038	4,679	640	22,247	524	1·73	60·07	11·20	91·25	..	24	
25	Layallpur	38,939	16,049	12,270	4,065	20,872	7,626	31·46	25·33	53·52	47·52	25	
26	Jhang	19,794	20,991	2,354	898	4,370	1,472	11·89	4·28	22·08	7·01	26	
27	Multan	37,961	38,328	6,745	12,924	24,025	28,104	17·77	33·72	63·29	73·32	27	
28	Muzaffargarh	22,170	52,079	2,665	4,788	8,645	19,721	12·02	9·19	38·99	37·87	28	
29	Dera Ghazi Khan	65,820	93,301	5,160	8,711	11,991	18,796	7·61	9·34	20·14	88·76	29	
	Special staff	21,966	54,817	2,234	870	8,492	18,429	10·17	1·59	38·66	33·62	..	
	Assistant Director of Public Health, Ambala Circle.	..	..	..	..	..	..	..	..	92·15	62·38	..
	Assistant Director of Public Health, Rawalpindi Circle.	..	..	..	..	..	..	..	..	93·61	35·56	..
	Assistant Director of Public Health, Multan Circle.	..	..	..	..	..	..	..	..	95·68	49·26	..
	Assistant Director of Public Health, Lahore Circle.	..	..	..	..	..	..	..	..	90·46	53·13	..
Total	..	868,089	863,989	139,636	94,186	366,678	264,377	16·09	42·24	30·60	96·31	68·80	

STATEMENT No. V.

STATEMENT SHOWING THE ANNUAL NUMBER OF SUCCESSFUL VACCINATIONS AND THE ANNUAL RATIO OF DEATHS FROM SMALL-POX PER 1,000 OF POPULATION IN EACH DISTRICT OF THE PUNJAB FOR FIVE YEARS ENDING 1930-31.

Number.	District.	1926-27.		1927-28.		1928-29.		1929-30.		1930-31.		Number.	
		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Hissar ..	23,844	0·74	23,656	0·35	32,449	1·07	30,519	0·64	38,300	0·56	1	1
2	Rohtak ..	21,537	0·05	26,876	0·20	30,728	0·40	39,748	0·30	36,661	0·35	2	2
3	Gurgaon ..	42,364	0·07	58,998	0·01	35,790	0·01	40,487	0·26	49,751	0·29	3	3
4	Karnal ..	35,439	0·29	38,774	0·32	46,483	0·06	49,975	0·32	43,381	0·20	4	4
5	Ambala ..	23,362	0·58	22,694	0·29	28,218	0·09	37,203	0·23	36,098	0·27	5	5
6	Simla ..	2,927	0·15	1,891	0·20	2,471	0·27	2,395	0·34	895	0·17	6	6
7	Kangra ..	55,782	0·22	57,896	0·18	59,837	0·14	51,433	0·05	51,375	0·04	7	7
8	Hoshiarpur ..	31,649	1·27	36,067	1·03	41,041	0·95	38,733	0·76	33,434	0·61	8	8
9	Jullundur ..	27,478	0·35	29,605	0·13	31,751	0·14	34,123	0·20	33,675	0·11	9	9
10	Ludhiana ..	23,082	0·60	22,520	0·22	28,632	0·15	33,188	0·72	28,777	0·26	10	10
11	Ferozepore ..	31,351	0·22	33,019	0·12	41,764	0·24	44,188	0·32	46,995	0·53	11	11
12	Lahore ..	53,264	1·42	45,752	0·65	52,749	1·01	64,514	0·58	59,389	0·38	12	12
13	Amritsar ..	38,780	0·67	51,253	0·44	55,870	0·47	58,559	0·32	64,504	0·19	13	13
14	Gurdaspur ..	33,766	0·52	36,488	0·29	39,900	0·24	51,183	0·21	57,588	0·12	14	14
15	Sialkot ..	27,795	0·86	35,196	0·51	34,093	0·54	37,552	0·25	46,380	0·38	15	15
16	Gujranwala ..	22,011	0·81	24,746	0·93	24,689	0·89	23,219	0·29	27,175	0·17	16	16
17	Sheikhupura ..	21,746	0·74	28,544	1·24	24,309	0·53	24,631	0·23	31,657	0·16	17	17
18	Gujrat ..	31,439	0·74	34,416	0·59	37,672	1·03	34,945	0·61	39,097	0·40	18	18
19	Shahpur ..	28,293	0·90	27,633	0·36	31,838	0·80	24,027	0·88	21,904	0·06	19	19
20	Jhelum ..	19,492	0·31	21,488	0·20	21,344	0·16	33,939	0·42	36,894	0·23	20	20
21	Rawalpindi ..	26,184	0·20	26,823	0·15	34,723	0·24	28,763	0·30	46,299	0·05	21	21
22	Attock ..	22,309	0·48	24,297	0·37	24,000	0·18	25,378	0·38	28,648	0·07	22	22
23	Mianwali ..	20,132	0·45	21,485	0·08	21,305	0·04	20,245	0·06	24,169	0·06	23	23
24	Montgomery ..	30,004	3·10	32,065	1·03	34,235	0·59	33,201	0·35	36,766	0·27	24	24
25	Lyallpur ..	48,283	1·38	51,317	0·86	49,434	0·44	40,744	0·21	44,448	0·07	25	25
26	Jhang ..	25,097	0·28	32,490	0·07	33,688	0·15	32,875	0·10	33,692	0·07	26	26
27	Multan ..	38,537	0·71	46,705	0·22	44,161	0·13	39,901	0·09	54,886	0·26	27	27
28	Muzaffargarh ..	43,686	0·92	44,088	0·23	43,530	0·03	47,964	0·03	58,751	0·02	28	28
29	Dera Ghazi Khan ..	42,132	1·58	32,408	0·60	70,803	0·09	103,364	0·04	107,677	0·11	29	29
	Total ..	891,765	0·75	969,190	0·43	1,057,507	0·42	1,126,996	0·34	1,219,266	0·24		
	Special Staff ..	59,138	..	31,761	..	78,107	..	55,172	..	44,374	..		
	Cantonment Staff ..	4,596	0·14	5,804	0·13	6,446	0·05	9,100	0·12	15,757	0·05		
	Dispensary Staff ..	2,500	..	2,751	..	3,114	..	3,187	..	2,721	..		
	Political Staff, Dera Ghazi Khan	3,951	..		
	GRAND TOTAL ..	957,999	0·74	1,009,506	0·43	1,145,174	0·42	1,194,455	0·34	1,286,069	0·24		

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